This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.

Class

CANAL ENLARGEMENT

IN NEW YORK STATE

AND RELATED PAPERS

BUFFALO

HISTORICAL SOCIETY

PUBLICATIONS

VOLUME THIRTEEN

EDITED BY FRANK H. SEVERANCE

F1.
.E5
v.13

GENEALOGY

Union and Times Press
Buffalo

OFFICERS OF THE

BUFFALO HISTORICAL SOCIETY

1909

PRESIDENT . . . . . ANDREW LANGDON
VICE-PRESIDENT . . . . . HON. HENRY W. HILL
SECRETARY-TREASURER . . . . . FRANK H. SEVERANCE

BOARD OF MANAGERS

Term expiring January, 1910.

HON. HENRY W. HILL, HENRY R. HOWLAND,
J. N. LARNED, CHARLES R. WILSON,
J. J. MCWILLIAMS.

Term expiring January, 1911.

ANDREW LANGDON, JAMES SWEENEY,
FRANK H. SEVERANCE, GEORGE A. STRINGER,
OGDEN P. LETCHWORTH.

Term expiring January, 1912.

ALBERT H. BRIGGS, M. D., LEE H. SMITH, M. D.,
R. R. HEFFORD, WILLIS O. CHAPIN,
LORAN L. LEWIS, JR.

Term expiring January, 1913.

ROBERT W. DAY, HENRY A. RICHMOND,
HUGH KENNEDY, CHARLES W. GOODYEAR,
G. BARRETT RICH.

The Mayor of Buffalo, the Corporation Counsel, the Comptroller, Superintendent of Education, President of the Board of Park Commissioners, and President of the Common Council, are also *ex-officio* members of the Board of Managers of the Buffalo Historical Society.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

204229

LIST OF THE

PRESIDENTS OF THE SOCIETY

FROM ITS ORGANIZATION TO THE PRESENT TIME.

---

*Millard Fillmore,	1862 to 1867
*Henry W. Rogers,	1868
*Rev. Albert T. Chester, D. D.,	1869
*Orsamus H. Marshall,	1870
*Hon. Nathan K. Hall,	1871
*William H. Greene,	1872
*Orlando Allen,	1873
*Oliver G. Steele,	1874
*Hon. James Sheldon,	1875 and 1886
*William C. Bryant,	1876
*Capt. E. P. Dorr,	1877
Hon. William P. Letchworth,	1878
William H. H. Newman,	1879 and 1885
*Hon. Elias S. Hawley,	1880
*Hon. James M. Smith,	1881
*William Hodge,	1882
*William Dana Fobes,	1883 and 1884
*Emmor Haines,	1887
*James Tillinghast,	1888
*William K. Allen,	1889
*George S. Hazard,	1890 and 1892
*Joseph C. Greene, M. D.,	1891
*Julius H. Dawes,	1893
Andrew Langdon,	1894 to 1909

* Deceased.

HON. GEORGE CLINTON.

SEE INTRODUCTION, P. XII.

CANAL ENLARGEMENT

IN NEW YORK STATE

PAPERS ON THE

BARGE CANAL CAMPAIGN

AND RELATED TOPICS

BUFFALO, NEW YORK
PUBLISHED BY THE
BUFFALO HISTORICAL SOCIETY
1918

CANAL ENLARGEMENT

IN NEW YORK STATE

PAPERS ON THE

BARGE CANAL CAMPAIGN

AND RELATED TOPICS

BUFFALO, NEW YORK:
PUBLISHED BY THE
BUFFALO HISTORICAL SOCIETY
1909

UNIVERSITY

INTRODUCTION

The principal group of papers in the following pages, dealing with the various phases of New York State's undertaking to reconstruct and enlarge her artificial waterways, are printed in fulfilment of the pledge made in the previous volume of this series. (Buf. Hist. Soc. Publications, XII, xii.) While in a sense these papers supplement Senator Hill's history of canal construction, they are in themselves a most valuable collection of monographs by experts in various phases of the transportation and construction problems. The Buffalo Historical Society appreciates the distinction given to its publications, by the generous coöperation of such capable and practical economists and engineers as Mr. Frank S. Gardner, Mr. Gustav H. Schwab, Mr. Henry B. Hebert, Major General Francis V. Greene, Colonel Thomas W. Symons, and others whose contributions give peculiar value to this volume.

In printing (pp. 197-208) the second report of the Western Inland Lock Navigation Company, we add a document of the highest value, in relation to the pioneer canal projects of our State, to others bearing on the same subject already included in this series. For the first report of this company, the reader is referred to Vol. II, Buffalo Historical Society Publications. In Vol. XII, Senator Hill has sketched the history of the early inland navigation companies. When a full history of their enterprises is written, the historian will find much useful data in the unpublished Schuyler papers in the Lenox Library. This source of early material for New York's canal history, was pointed out, with some detail, in the Introduction of the preceding volume of this series. A few documents, bearing on the subject, are in the possession of the Buffalo Historical Society.

For example, one aspect of the difficulties encountered by the first canal builders of our State is shown by the following, the original of which is among the Porteous papers in the archives of this society:

The PRESIDENT *and* DIRECTORS *of the W. I. L. L.*[1] *N. Compy in the State of New York,*

To JOHN PORTEOUS . . . . . Dr.

1793.	To 312 Rods of Log & Worm fence entirely burnt up and destroyed by the Companys men cost 40 cents a rod, is	$124.80
	To damage in laying the ground open & useless as a pasture during the work thro' this inclosure 3 years	37.50
	To damage of another inclosure broke down & exposed to cattle & sheep 1 year which destroyed a number of young imported fruit trees	40.00
		$202.30
	To firewood used by the men during the last two years	15.00
		$217.30

Worthy of preservation in this connection is the following letter from Philip Schuyler, president of the Western Inland Lock Navigation Company, to George Huntington, contractor, at Rome. It is here printed from the original in the collections of this society:

NEW YORK Friday May 20th, 1803

DEAR SIR Yesterday, a meeting of the board of directors, of the Western canal company, was convened. I believe, the Gentlemen who compose the present board, are convinced, from the explanations made to them, that it would have better comported with the interest of the company, if our operations in the present year had been directed to the locking of Wood Creek, in all its extent, instead of renewing two of the locks, at the falls.

The board of directors, has authorized me to request of you, to be so good, as to compleat the intended improvements in Wood Creek, between the third lock, erected last year, and the lock at Rome. Whether the deepening of the creek, in all the intermediate distance, or laying the lock which was prepared last year, and only removing the sand, collected in the creek, at the tail of the lock at Rome, will be the most eligible, I beg leave to submit to your discretion, and decision, and if you will, as I hope you will, take charge of, superintend, and direct this improvement, then to do it in either mode, which you shall judge most advantageous, to facilitate the navigation of that part of the Creek—to engage such carpenters, other mechanics and labourers, as you may deem requisite, to stipulate the compensation to be made to the workmen of every discription, to purchase all the requisite materials for the work, to apply to Mr. Bleecker for such articles as cannot be procured at Rome, or in its vicinity, and to draw on him for what money you may want for these operations.

1. This additional "L" frequently occurs in the old accounts and letters, and sometimes the form "Western Inland Lock and Lake Navigation Co."

You are well aware how indispensable I deem it that an agent, superintending a work, and in whose ability, integrity, exertions and judgment full reliance can be placed, should not be embarrassed in his operations by restricted and detailed directions, I therefore close the subject with entreating you to pursue such measures as you shall deem most conducive to accomplish the object now solicited of you and without applying for directions on any incidents which may arise in the prosecution.

If the house, at the Oak Orchard, should be uninhabited, I apprehend it may be much injured and perhaps exposed to conflagration, if fire be left in it by careless or malignant boatmen. I beg you therefore to place some discreet person in it, if none is already there, and if none can be obtained without a moderate pecuniary compensation, to agree for that.

The board of directors have also determined that the committee at Albany should cause a survey of the Mohawk river to be made and the levels taken, to ascertain the rise of every rapid between Schenectady and Rome, and as Mr. Wright has executed what was enjoined him in the last year with such perfect propriety as to afford great satisfaction, an application will probably be made to him by the Committee, to perform the required survey, as soon as the paucity of the water in the Mohawk shall render it proper to commence the surveys; be pleased to mention this to Mr. Wright and if he thinks he can then attend to it I wish him to advise the committee thereof.

If proper stone and lime for the construction of locks in Wood Creek could be obtained from Fish Creek, either by land or water conveyance, unless at a very extra expense, I should if I had any agency in the business decide in favor of stone in preference to wood. Will you be so good as to make the necessary enquiries relative to this subject and advise me of their result, and be pleased to extend your enquiries to learn if proper stone is to be found on the banks of the Oneida lake, or at a moderate distance from its shores or on the islands. should any be there, the expence of transportation would be greatly reduced, as vessels of extensive burthen might be constructed for its conveyance.

Intreat Mrs. Huntington and Mrs. Moore to participate with you in my respects and best wishes.

I am Dear Sir with great regard and esteem,

Your Obedient Servant

PHI[LIP] SCHUYLER

President of the board of Directors of the W. I. L. L. N. Company in the State of New York.

To GEORGE HUNTINGTON *Esq.* [*at Rome*].

Among the papers in the possession of the Buffalo Historical Society, relating to this subject, are account books, with record of corn, bran, peas, flour, etc., supplied "for the Western canal, 1793," apparently by Phyn & Ellice, merchants of Schenectady; also a toll book of the Western Inland Lock Navigation Co., with record of cash receipts for tolls, in passing the locks at Little Falls,

Nov. 17, 1795, to Apr. 16, 1796. It is worthy of note that according to this record, boats passed to and fro during December. Destinations are indicated in entries like the following:

	£	s	d.
Boat to Geneva with full load	—	18	—
" from Kingston, Upper Canada, & 1 load	—	9	—
Large boat to Ft. Stanwix & 4½ ton of goods on board	2	8	6
Boat to Niagara, got dam[aged] in the lock on Sunday last, *free*	0	0	0
Three empty boats from Geneva	—	13	6

Most of the boats hailed from or passed to Mohawk-valley points, but the frequent entries of boats from Geneva, Niagara and Kingston, Upper Canada, enables one to realize the wide reach of this primitive canal traffic. Miscellaneous minor data like the above might be multiplied; but the most valuable—and for most students, no doubt, the entirely adequate—history of the inland lock enterprise, is embodied in the Reports of 1796 and 1798.

The Canal Memorial of 1816, referred to in Vol. XII, is here printed in full. Its importance in the canal history of the State makes its inclusion in our series desirable; especially as in connection with it was begun in Buffalo, the first canal movement of Western New York, as set forth on pp. 211-213.

In connection with the historical sketch of the Buffalo Board of Trade, the editor regrets that data were not at hand for a more adequate sketch of its founder, Russell H. Heywood, than is presented in the following pages. The facts there given may be supplemented by the following correspondence, preserved by this society:

OFFICE OF THE BUFFALO & NEW YORK CITY RAIL ROAD

BUFFALO, August 18th, 1852.

DEAR SIR—You are invited to attend the Celebration of the completion of the High Bridge across the Genesee River at Portage, and opening of the Road from Attica to Hornellsville, on Wednesday, the 25th inst., at Portage.

Yours, Respectfully,

RUSSELL H. HEYWOOD, *President.*

[*To* R. M. MAGRAW, *President*,
Baltimore & Susquehannah Railroad Co., Baltimore.]

OFFICE BALTIMORE & SUSQUEHANNAH CO.,
BALTIMORE, August 23rd, 1852.

RUSSELL H. HEYWOOD, *Esq.*,
Pres. B. & N. Y. C. Co.,

DEAR SIR: I am in receipt of your most esteemed favor of the 18th inst., being an invitation to attend the celebration of the completion of the High Bridge across the Genesee river at Portage, and the opening of your road from Attica to Hornellsville on the 25th inst. I have watched with interest the progress of your work, particularly the erection of the bridge over the Genesee river at Portage, which may truly be regarded as a work of the age and one which, in an eminent degree, reflects credit on the minds that conceived as well as the hand which executed the work. The completion of your road will give the New York and Erie Railroad a proper terminus on the lake. Buffalo has been, is now, and always will be, the "City of the Lakes," and it is therefore in my opinion essential to the future success of that great work that it should have an unbroken connection with that city and which is now secured through the completion of your road. But permit me to say that this is not the only important feature in the location of your road. A glance at the map will exhibit it as the northern link in the chain of railway connecting the National Capital with Buffalo, the Northwest and the British Possessions, a work essentially national in its character. Commencing at the seat of Government, dividing by a direct line the states of Maryland, Pennsylvania and New York, and terminating at the Canadas, covering a distance that can easily be overcome in a single day. To perfect this great work only 150 miles remain to be finished—that section is between Harrisburgh and a connection with your road. The friends of this Southern link of this chain, between Baltimore and Harrisburgh, are taking steps to have the line between Harrisburgh and Williamsport put under contract. The section between Williamsport and the New York & Erie Railroad remaining unprovided with the means requisite for its construction.

I regret that an official engagement previously made will prevent me from being present on so interesting an occasion as the celebration of the opening of your road. Tendering my thanks for your polite invitation

I am yours most respectfully,

R. M. MAGRAW.

As often happens to public-spirited promoters of enterprises, ultimately of great benefit to the region in which they operate, Mr. Heywood profited nothing by his share in this railroad building. On the contrary, he lost a fortune in it. The corporate title of the "Buffalo & Hornellsville," as it was locally known, was the Buffalo & New York City Railroad. It included the "Buffalo & Rochester" line, from Buffalo to Attica, 32 miles, and from Attica to Hornellsville, about 59 miles. These lines, after various changes, were merged in the Erie system. The bridge, the opening of which

occasioned the above correspondence, was the famous wooden trestle, a network of bents and trusses begun July 1, 1851, and crossed by a train for the first time Aug. 14, 1852. It was 800 feet long, 234 feet high, and was destroyed by fire in 1875.

In the "Reminiscences of Erie Canal Surveys in 1816-17," by Wm. C. Young, and the group of papers that follow, are presented many facts bearing on the general subject of this volume; and although some of them are of minor importance, it is believed that their variety will add interest, as their facts add value, to our collection.

It is matter of regret that the Hon. George Clinton has been unable to prepare for the present collection a paper dealing with his own participation in canal matters. For many years he was foremost among the citizens of Buffalo as an advocate of canal enlargement. Elected to the State Assembly in 1883, he was made chairman of the Assembly canal committee. He introduced and secured the passage of the bill providing for the doubling in length of lock 51 of the Erie canal, allowing two boats to pass at once. This work, experimental in nature, proved satisfactory and led to the subsequent similar improvement of locks throughout the canal system of the State; securing, it is stated, a gain to commerce of a reduction in the cost of canal freightage by about 40 per cent. This legislation also led to the forming of the organization for canal improvement, of which the Hon. Horatio Seymour was the first president, and Mr. Clinton his successor in 1885. For extended notice of Mr. Clinton's participation in many phases of work for the betterment and preservation of New York's canals, the reader is referred to Senator Hill's narrative, Vol. XII of this series; and to numerous passages in the present volume, as shown by the index.

In presenting Mr. Clinton's portrait as frontispiece for this volume, the Historical Society merely indicates in slight measure the distinction which is his, among many and varied public services, for his long and successful advocacy of canal and harbor improvement. His illustrious grandfather, DeWitt Clinton, more than any other one man, virtually created New York's canal system; and no man in his day has done more to promote the welfare of that system, and thereby, in the view of canal advocates, to promote the well-being of the State, than the Honorable George Clinton.

It is obviously impossible, in these volumes, to present *in extenso*, every aspect of our canal history; nor is that our undertaking. The present purpose is to supplement Senator Hill's comprehensive history (Vol. XII) with relevant material, deemed useful to the student, worthy of preservation, and for the most part heretofore unpublished. It is also the desire of the Historical Society to make proper recognition of the services of the many men of Western New York, who have aided, especially in the Legislature, to promote measures in the interest of the canals. This recognition, to a large extent, has been admirably made in the preceding volume. One friend of the canals, whose services should always be gratefully remembered, and appreciatively recorded, is the Hon. Robert C. Titus. His speech in the State Senate, March 29, 1882, in favor of the free canal amendment to the Constitution, may fairly be regarded as marking a new epoch in the policy of the State. So, too, the labors of the Hon. Israel T. Hatch, in Congress, and elsewhere, soon after the Civil War, won distinction for him at the time, and entitle him to a place by no means obscure in the history of this subject. So large is this field that the limits of the present volume are reached before many phases of our general subject have been presented. A succeeding volume will, therefore, be devoted, at least in part, to papers and documents relating to New York State's waterways.

That volume—No. XIV of our series—is now in press. It will open with the correspondence that passed between Joseph Ellicott, agent for the Holland Land Company in Western New York, and Paul Busti, the company's general agent for America; Governor DeWitt Clinton, Simeon DeWitt, State surveyor, and others, relative to canal construction in Western New York. These letters are drawn chiefly from the large collection of Holland Land Co. papers owned by the Buffalo Historical Society. As yet unpublished, they will be found to contain a wealth of interesting material, of first-rate importance in Western New York history. To them will be added journals of early travel, by canal and otherwise, and miscellaneous data of undoubted value.

Volumes XII, XIII and XIV of our series, taken together, will be found to constitute an unequaled collection of historical material, relating to New York State waterways and allied topics.

F. H. S.

CONTENTS

PAGE

OFFICERS OF THE SOCIETY iii
LIST OF PRESIDENTS OF THE SOCIETY iv
INTRODUCTION vii

PAPERS RELATING TO CANAL ENLARGEMENT:

THE CANAL IMPROVEMENT UNION . . . . . *Frank S. Gardner* 1
THE STATE COMMERCE CONVENTIONS OF 1899, 1900 AND 1901 12
NEW YORK CITY'S PART IN THE RECONSTRUCTION OF THE STATE'S WATERWAYS . . . . . *Gustav H. Schwab* 35
ACTION OF THE NEW YORK PRODUCE EXCHANGE RELATIVE TO RAILROAD DIFFERENTIALS AND CANAL ENLARGEMENT . *Henry B. Hebert* 77
THE INCEPTION OF THE BARGE CANAL PROJECT . . . . . *Gen. Francis Vinton Greene* 109
THE UNITED STATES GOVERNMENT AND THE NEW YORK STATE CANALS . . . . . *Col. Thomas W. Symons* 121
THE FUNCTION OF NEW YORK'S BARGE CANALS IN CONTROLLING FREIGHT RATES . . . . . *Hon. John D. Kernan* 135
NEW YORK STATE CANALS, 1895 TO 1903 . . . . . *George H. Raymond* 157
REMINISCENCES OF THE BARGE CANAL CAMPAIGN . . . . . *Howard J. Smith* 181
THE NEW YORK STATE PRESS IN THE CAMPAIGN FOR ENLARGEMENT OF CANALS . *M. M. Wilner* 187

SECOND REPORT OF THE WESTERN INLAND LOCK NAVIGATION COMPANY, 1798 195
THE CANAL MEMORIAL OF 1816 209

PAGE

HISTORICAL SKETCH OF THE BOARD OF TRADE, THE MERCHANTS' EXCHANGE AND THE CHAMBER OF COMMERCE OF BUFFALO . . . . . *Frank H. Severance*

I. Beginnings of Commercial Union in Buffalo 237
II. Birth of the Board of Trade 242
III. The Business Situation in the '40's 252
IV. An Early Triumph — The St. Clair Flats Canal 258
V. Incorporation — A New Beginning 262
VI. On Central Wharf 266
VII. The Board of Trade Adopts a Regiment . . . 271
VIII. The Financial Side 279
IX. The Move Up-Town — The Merchants' Exchange 285
X. Miscellaneous Work — Some of the Workers 295
XI. Buffalo and the Canal 303
XII. The Grade Crossings Campaign 308
XIII. Relations with other Organizations 311
XIV. The Chamber of Commerce 324

REMINISCENCES OF ERIE CANAL SURVEYS IN 1816-1817 . . . . . *William C. Young* 331

Secret History of Incipient Legislation for the Erie Canal . . . . . *F. C. White* 349

CANVASS WHITE'S SERVICES . . . *J. Pierrepont White* 353

The White Memorial Tablet 364

AN APPRECIATION OF THE WORK OF ELMORE H. WALKER . . . . . *George Alfred Stringer* 367

GEORGE S. HAZARD: A TRIBUTE . . . . . *George Alfred Stringer* 373

RECOLLECTIONS OF THE EARLY FORWARDING TRADE . . . . . *Hon. Lewis F. Allen* 377

NOTES ON THE CANAL FORWARDING TRADE . . . *L. Porter Smith* 381

MEMENTOS OF THE OPENING OF THE CANAL:

Black Rock Invited to Buffalo 385
A Celebration Contract 386
How Buffalo Dug the Canal . . . .*William Hodge* 387
A Lost Work of Art . . . . . *R. W. Haskins* 390
The Erie Canal Gun-Telegraph . . . *Orlando Allen* 392

APPENDIX.

PAGE

PROCEEDINGS, BUFFALO HISTORICAL SOCIETY:

"BRONZE WORK IN ART AND HISTORY": PRESENTATION OF ANTIQUE CANDELABRA . . . . . *Andrew Langdon* 397

FORTY-SIXTH ANNUAL MEETING, JAN. 14, 1908 403

INDEX 415

ILLUSTRATIONS.

PORTRAIT, GEORGE CLINTON . . . . . *Frontispiece*

PORTRAIT, GUSTAV H. SCHWAB . . . . . *Op. p.* 35

PORTRAIT, HENRY B. HEBERT . . . . . " 77

PORTRAIT, MAJ.-GEN. FRANCIS V. GREENE . . . . . " 109

PORTRAIT, RUSSELL H. HEYWOOD . . . . . " 243

CENTRAL WHARF, BUFFALO . . . . . " 267

PORTRAIT, WILLIAM C. YOUNG . . . . . " 333

MODEL, "CHIEF ENGINEER OF ROME" . . . . . " 345

PORTRAIT, CANVASS WHITE . . . . . " 353

TABLET TO WM. C. YOUNG AND CANVASS WHITE . . . . " 365

PORTRAIT, ELMORE H. WALKER . . . . . " 367

PORTRAIT, GEORGE S. HAZARD . . . . . " 373

THE HARBOR OF BUFFALO IN 1827 . . . . . " 377

INVITATION CARD, OPENING OF THE ERIE CANAL . . . . " 385

NORTH ENTRANCE, BUFFALO HISTORICAL SOCIETY BUILDING " 397

PAPERS RELATING TO

CANAL ENLARGEMENT

IN NEW YORK STATE

UNIVERSITY OF CALIFORNIA

THE CANAL IMPROVEMENT UNION

THE CANAL WORK OF THE NEW YORK BOARD OF TRADE AND TRANSPORTATION, AND THE STATE COMMERCE CONVENTIONS OF 1899, 1900 AND 1901

By HON. FRANK S. GARDNER

Secretary of the Canal Improvement Union; Secretary New York Board of Trade and Transportation; etc., etc.

The period when the competition of rival routes and ports, and the improvement of railroad transportation forced upon the people of New York the conviction that the tolls upon the canals would have to be reduced, was from 1870 to 1879. The tolls had theretofore produced a revenue of many millions of dollars in excess of the cost of construction and maintenance.

The pressure of the competition of rival ports and the hostile rivalry of the railroads paralleling the canal caused the low toll movement irresistibly to become a movement for free canals. West bound tolls were abolished and on January 1, 1883, all tolls were abolished by a vote of the people of the State, the expenses of maintenance and repairs thereafter to be paid by taxation. The interesting and instructive story of the years of agitation in which the free canal idea gathered strength and finally conquered over sectional opposition and jealousy cannot be narrated here.

Freedom from tolls saved the canals, and preserved them as the chief reliance against the diversion of our trade. But it soon became apparent that the physical structures of the

canals were antiquated and dilapidated, and the methods of transportation thereon such that unless radically improved water transportation within the State would soon cease to be a factor of any consequence in our commerce.

In 1884, therefore, the New York Board of Trade and Transportation, apprehending with deep concern the decay of the canals, called a State convention which was held in the city of Utica in July, 1885, to consider what steps should be taken to secure the permanent improvement of the State's waterways.

At this convention "The Union for the Improvement of the Canals of the State of New York" was organized, with former Governor Horatio Seymour of Utica as the president; Hon. Orlando B. Potter of New York as chairman of the permanent executive committee; William H. Webb of New York as treasurer; and Frank S. Gardner of New York as the permanent secretary. Governor Seymour died within the year after his election as president and was succeeded by Hon. George Clinton of Buffalo, who was elected the president at the second convention of the Union, held in Syracuse in 1886.

At the time the Canal Union was organized, the waterways had come to be generally regarded as of little consequence and as having a rapidly diminishing influence upon transportation. Hence, they had comparatively few friends and many open enemies. The influence of the latter, supplemented by that of the railroads, was felt in the commercial bodies of the State. Even the chairman of the canal committee of one of the largest of these organizations was openly hostile to making any effort to secure improvements, declaring that the canals were things of the past and that the merchants would better make their peace with the railroads.

Wiser counsel prevailed, however, and the Canal Improvement Union gathered great strength, while its agitation in behalf of the canals enlightened the public mind as to their true importance and increased their popularity.

In 1887 the New York *Tribune,* in an article relating to the progress which the canal improvement idea had made in

public favor, declared that "the Union for the Improvement of the Canals of the State of New York is the most powerful and influential aggregation of commercial and manufacturing interests within the State of New York."

For ten years the Canal Improvement Union continued its persistent and effective agitation against the forces of destruction, including the trunk lines of railroads which had organized a bureau from which millions of printed anti-canal documents flowed in unceasing streams to all parts of the State.

Nevertheless, such progress was made that the Legislature passed laws each year carrying appropriations until 38 of the 74 dilapidated locks were rebuilt and lengthened and many other repairs and improvements effected, the total State expenditure during the ten years being about two millions of dollars for extraordinary repairs over the cost of maintenance and ordinary repairs.

The Canal Improvement Union having gathered such strength, its members were encouraged to make a final effort for what was then considered an improvement adequate to meet competition, and they sought through legislation and the vote of the people what was thought to be an appropriation large enough to carry such measures into effect. This resulted in the passage of the law of 1895, known as the Nine Million Dollar Canal Act.

The unfortunate mistakes which were made in connection with the expenditure of the nine-million dollar canal improvement fund, which proved to be wholly inadequate to pay for the actual work under the plans which had been adopted, were most disastrous to the cause of canal improvement. A revulsion of public sentiment caused by the seeming waste of a sum so large resulted in the abandonment of the improvements and threatened the total abandonment of the canals.

Upon the passage of the Act of 1894 the Canal Improvement Union, believing its work accomplished, discontinued its annual conventions, and trusting too much in the capacity and wisdom of the State officials in charge of the work, was practically disbanded. About three years later, when it

became known that the nine millions of dollars had been exhausted and the improvement had failed, there was no central organized exponent body in this State to consider the situation and act in the emergency.

In the fall of 1898, the New York Board of Trade and Transportation being impressed with the very great danger which threatened the perpetuity of the State canals, appointed a special committee for the purpose of conferring with other organizations and with the friends of the canals throughout the State, with the object of reviving the canal improvement movement and, if deemed advisable, calling a State Canal Improvement Convention.

During the winter of 1898-99 Mr. Wm. F. McConnell, representing the New York Board of Trade and Transportation, was sent upon several tours through the State for the purpose of conferring with friends of the canals and again enlisting their active support and to secure their coöperation in holding the proposed canal convention. This effort proved to be a total failure. Not a single man or organization could be found willing to again put forth any effort for the canals, and the general sentiment expressed was that they were doomed to early decay and abandonment. Referring to this subject the Committee on Canals of the Board of Trade and Transportation in a report to the Board June 13, 1900, said:

"Emphatic opposition and discouragement was found everywhere. The old friends of the canal had lost heart, and many of them were openly opposed to any further attempt to save the canals. We were unable to secure a single promise from any organization or individual for coöperation in an attempt to revive the canal movement.

"At that time the secretary of the Board suggested the calling of a state convention on the broader grounds of State commerce. He contended that State commerce embraced canal commerce; that the canal question would necessarily become prominent in any discussion of State commerce and he predicted that the canal question would thereby be revived and possibly become the overshadowing topic in any representative gathering of the business men of this State. It was conceded everywhere that something must be done for our commerce, but no plan or policy had been formed, no measure outlined. . . .

"Having in mind this suggestion on the 8th of February, 1899, this Board addressed a communication on the subject of canal improvement to Governor Roosevelt, declaring that 'the time has come for radical measures if New York is to preserve her proper commercial question.'"

On the same day, February 8, 1899, the Board of Trade and Transportation adopted the following resolutions which were sent to Governor Roosevelt with the letter referred to, viz.:

Resolved, That the New York Board of Trade and Transportation respectfully directs the attention of the Governor and State Legislature, now in session, to the dangers that threaten the commerce and supremacy of New York. Rival seaport cities and the Dominion of Canada are making herculean efforts to wrest from us our trade and commerce by providing water and rail outlets from the great granaries of the west and northwest to the seaboard cheaper than those provided by New York's canals and railroads. This State has not kept pace with the gigantic strides of sister states, the Dominion of Canada and competing ports in the way of improving or enlarging our canals to meet the requirements upon them; neither has she provided cheapened terminal facilities to encourage the exporting and importing business of the nation to seek our city for distribution on its way to and from the Old World and the interior of this vast country.

Resolved, That the New York Board of Trade and Transportation believes that the time has come for radical measures if New York is to preserve her proper commercial position. Railroad discriminations should be abolished; elevator charges, wharfage exactions, port charges, and taxes on commerce of all kinds must be reduced immediately to a minimum. Unless these abuses on commerce are corrected at once and our canals properly enlarged or improved without delay, it is certain that New York will soon be compelled to surrender her commercial supremacy to more active and far-sighted competitors.

On the 8th day of March, 1899, one month after the Board had suggested to Governor Roosevelt that the time had come for taking "radical measures," he appointed "The Committee on Canals of New York State," otherwise known as "The Governor's Advisory Canal Committee," of which General Francis V. Greene was the chairman.

On the same day that Governor Roosevelt appointed the Advisory Canal Committee, the New York Board of Trade and Transportation adopted the following resolution on the motion of Mr. G. Waldo Smith, viz.:

Resolved, That the President be requested to appoint a special committee of the members of this Board, with power to coöperate with committees of other organizations, and that the committee be directed to call a convention of representatives of organizations, cities, towns, etc., interested in preserving and promoting the commerce of this State. That such convention be called to meet at such place and time during the current year as will best serve the ends in view, viz., that means be devised and steps taken to prevent the further diversion of our commerce and to secure the united influence of all interests in this State in behalf of such plans as may be decided upon as practicable.

The late Wm. H. Parsons, then the president of the Board of Trade and Transportation, pursuant to these resolutions, appointed a committee of ten, the following nine of whom accepted and served, viz.: G. Waldo Smith, of Smith & Sills, grocers; Ludwig Nissen, of Ludwig Nissen & Co., jewelers; John H. Washburn, vice-president Home Insurance Co.; George E. Armstrong, secretary H. B. Claflin Co.; F. B. Thurber, president U. S. Export Association; Dr. Samuel Adams Robinson; Wm. E. Cleary, president Erie Boatmen's Transportation Co.; Patrick Farrelly, manager American News Co.; J. Edgar Leaycraft, real estate. This committee after due deliberation formulated plans and issued the following "Preliminary Call":

NEW YORK, May, 1899.

The New York Board of Trade and Transportation has appointed a special committee with instructions to prepare for and call a "State Commerce Convention" to be held at some convenient city in the State during the present year. The time and place have not been definitely decided upon, but the present purpose is to call it about September 1st.

The object of the convention is to consider deliberately all matters relating to commerce and manufactures, and incidentally the

laws and usages of business which now make for progress or hinder it.

In this category may be classed many practically distinct subjects which in their relation to commerce and manufactures have a most important influence upon our material prosperity.

There are questions having a truly general interest for all sections of the State, such as taxation, the laws of business corporations, railroad transportation, canal transportation and forest preservation.

There are other questions which while in a sense local are so closely related to our commerce and industries as to be classed as general. Among these are terminal facilities and terminal charges, including elevation at Buffalo and New York, wharf charges, and other port charges which are a tax upon commerce; the improvement of the Staten Island and Port Morris water fronts, and the channels connected therewith, the improvement of the water front of the city of New York on Manhattan Island, the setting apart irrevocably of adequate accommodation for the boats that travel the State canals, and the needed improvements at lake ports in this State.

Of these questions some are overshadowing, but all are of great importance not only to the principal cities, but to all the people of the State.

Commerce was mainly the incentive that first peopled Manhattan Island with white men. Commerce has been the upbuilding of the city and State of New York, and commerce today maintains their supremacy in population and wealth. Commerce and manufactures, twin industries, give employment to capital and a livelihood to the industrious masses. Where they are brought, buildings increase in number, lands and buildings become valuable, and cities are made with their teaming population.

Where cities exist and are prosperous, there are the markets for the products of garden and farm and the benefits of commercial and manufacturing activity are spread abroad.

Commerce and manufactures should, therefore, be encouraged for the well-being of *all* the people.

How may commerce and manufactures be increased within the State of New York is the question for the State Commerce Convention to consider. What means may be employed for the advancement of these great primary interests?

The first practical step in that direction is to get together. No part of the State but is deeply interested in this question. Every part of the State should be represented.

The second practical step follows, viz., discussion, the presentation of needs, the statement of propositions, the suggestion of and agreement upon measures for a betterment of conditions.

The third practical step is to unite the influence of all sections represented to secure from the Legislature the enactment of the measures which may be agreed upon.

Such in essence is the object of the State Commerce Convention for which your support is solicited.

The great and important results to the State of New York of such a gathering of the business men of the State cannot be overestimated.

It means much labor and persistent effort. It also means that a permanent State organization should be effected to carry forward and promote the measures agreed upon. It means the continued coöperation of every local organization until this movement has made itself felt in the Legislative halls of the State, and until the business men of the State have made their impress upon the political parties by non-partisan action, or, if necessary, by independent or partisan action, and until the ends in view have been attained.

Every city and village in the State should have a local Board of Trade or Business Men's Association. Such bodies lead to enterprise and a betterment of local conditions and we urge the business men in all places that have no such association to organize at once.

With this presentation, therefore, we invite your coöperation.

We ask that you take into consideration at once the question of participating in this movement, and that you kindly inform the undersigned at the earliest day practicable if you will attend or send delegates to the State Commerce Convention.

Each constituent body having 20 members and less than 100 may send one delegate.

Having	100	and less than	200	—two	delegates
"	200	"	350	—three	"
"	350	"	500	—four	"
"	more than	500		—five	"

Mayors of all cities are invited to attend and where no organization exists or where the existing organization fails to send delegates may name three delegates from such city.

Presidents of incorporated villages are invited to attend or appoint one delegate.

Boards of Supervisors in the counties in the State may appoint two delegates.

All delegates must be provided with credentials from the organization, Mayor, President, or Board appointing them.

Requesting a reply at early date,

Very respectfully,

[Signed by the Committee.]

All the important and many of the smaller newspapers of the State immediately published this preliminary call and the great interest in the convention was made apparent by the fact that seven different cities through their commercial bodies or officials, and in some instances both, sent invitations to the committee accompanied by arguments and earnest appeals to have the convention held in their places.

Preliminaries having been determined, the committee finally issued the "official call."[1]

Having in special view the main object for which the convention was called, viz., to renew the discussion of the canal improvement question, the committee arranged the "Official Programme" so that this subject would have special prominence, and also secured in advance prominent men to make addresses on its various phases.

The first State Commerce Convention met at Utica, and organized a permanent State Association, with Hon. John D. Kernan of Utica as president and Frank S. Gardner of New York as secretary.[2]

The influential bodies which were represented at these several conventions were located in every important section of the State.

On September 5, 1899, the date on which the official call for the first convention was issued, and three and a half months after the issue of the preliminary call, the committee had been promised delegates from sixty-eight cities and incorporated villages, from seventy-eight commercial organizations, and forty-one mayors and presidents of villages had promised to attend the convention.

1. An abstract of the official call follows Mr. Gardner's paper.

2. Abstracts of the proceedings of this convention, and of the second and third State Commerce Conventions, and of the action of the adjourned meeting of the convention, are appended to this paper. These abstracts give the resolutions adopted, and also the names of the officers and committees elected at each convention.

A special invitation was sent to the Poughkeepsie Board of Trade because it was believed that the Hon. John I. Platt of that organization would be the delegate. Mr. Platt wrote that he had been appointed a delegate but, said he, "you do not want me because I will make trouble if I go." He was assured that he would be welcome, and furthermore was invited to make an address expressing his views in opposition to the improvement of the canals. This invitation Mr. Platt accepted, and he addressed the convention for over an hour. The abstract of the proceedings of this convention states that the report of the canal committee presented by Hon. George B. Sloan of Oswego "was adopted by the convention with one dissenting vote."

This result, attained in a large gathering of men from all parts of the State, brought together at such a time and without reference to their views, including several anti-canal sections, notably the city of Binghamton, which was represented by its Mayor and four delegates from the Board of Trade, was most gratifying.

Upon a *viva voce* vote one single voice was heard in the negative on the adoption of the canal resolutions. When the chairman put the question a second time by a standing vote, the single dissenter did not rise, and Mr. John I. Platt did not vote.

The greatest enthusiasm over the canal question was immediately aroused throughout the State, and as had been anticipated it again became the most prominent State issue. So strongly was the influence felt at once that both of the great political parties were easily induced to place planks in their platforms which endorsed the improvement.

The resolutions of the conventions as printed in the abstracts of the proceedings expressed the policy and wishes of the commercial interests of the State but they can give no conception of the labor involved in presenting them to the Legislature, in spreading them abroad among the people and in meeting and finally defeating the forces of the opposition. The State Commerce Convention served the purpose for which it was called into existence, to revive the discussion of the canal improvement question at a time when it

appeared to be a lost cause. It not only revived the discussion, but it brought to the support of the canals thousands of the most influential business men and politicians in the State.

It is not practicable in this brief sketch to narrate in detail the interesting and important events which were at critical periods determining factors in the fight to preserve the canals.

The names of the men who were most active in the work of the State Commerce Convention will be found in the abstracts of proceedings among the officers and especially on the State Committee and the Executive Committee.

THE

STATE COMMERCE CONVENTIONS

OF 1899, 1900, AND 1901

The New York Board of Trade and Transportation issued the official call for a State Commerce convention, to be held at Utica, October 10 to 12, 1899. It set forth that the object of the convention "is to consider deliberately all matters relating to commerce and manufactures in New York State and incidentally the laws and usages of business which now make for progress or hinder it." It provided for representation by delegates of all chambers of commerce, boards of trade, business men's associations, and manufacturers' associations, and all others whose members were interested in promoting commerce and manufacture in the State. The mayors of all cities were invited to attend and asked to appoint three delegates, each, in addition to such as were to be appointed by local organizations; also presidents of villages and the board of supervisors in every county of the State were invited to appoint delegates.

The first day's programme was chiefly devoted to the great problem "The State Canals, what shall be done with them?" taking up such questions as the need of canal terminal facilities, wharf charges, grain elevation, forest preservation as related to commerce, etc. The second day was devoted to railroad questions, and the third day to taxation as affecting commerce and manufactures.

The preliminary arrangements were strikingly well worked out, specifying the character of the debate, length of speeches, etc., in order that as much might be accomplished as possible within the specified time.

This circular was signed by G. Waldo Smith, chairman of the committee of the New York Board of Trade and Transportation, and eight other members, with Mr. Frank S. Gardner as Secretary.

THE UTICA CONVENTION OF 1899.

Hon. George B. Sloan of Oswego was elected the temporary chairman; Hon. John D. Kernan of Utica was elected the permanent chairman. Mr. Frank S. Gardner of the New York Board of Trade and Transportation, Hon. John Cunneen of Buffalo, and Dr. A. H. Bayard of Cornwall were elected secretaries, and Mr. Russell H. Wicks of Utica was elected treasurer.

The committee on credentials reported a roll of delegates duly appointed by and representing the following organizations, boards of supervisors, mayors of cities, and presidents of villages:

ORGANIZATIONS.

New York Board of Trade and Transportation.
New York Produce Exchange.
Chamber of Commerce, Utica.
Chamber of Commerce, Syracuse.
Chamber of Commerce, Rochester.
Buffalo Merchants' Exchange.
Manufacturers' Association of New York (Brooklyn Borough).
Merchants' Association of Catskill.
New York Retail Grocers' Union.
New York State Hardware Jobbers' Association.
Binghamton Board of Trade.
Oswego Board of Trade.
Coxsackie Board of Trade.
Retail Lumber Dealers' Association of the State of New York.
Chamber of Commerce, Little Falls.
Business Men's Association, Canastota.
Business Men's Association, Cohoes.
Business Men's Association, Auburn.
Board of Trade, Cornwall.
Business Men's Central Council, Buffalo.
Lumber Trade Association, New York.
New York State Canned Goods Packers' Association.
Stationers' Board of Trade, New York.
Maritime Association of the Port of New York.
Paint, Oil and Varnish Club, New York.
New York State Wholesale Grocers' Association.
Wholesale Grocers of New York City and Vicinity.
Canal Boat Owners' Association of the State of New York.
Merchants and Manufacturers' Board of Trade, New York.
New York Tax Reform Association.

Board of Trade, Frankfort.
Canal and Harbor Union, New York.
Staten Island Chamber of Commerce.
Wallabout Market Merchants' Association, Brooklyn.
Business Men's Association, Lockport.
Oswego Lumbermen's Exchange, Oswego.
Black Rock Business Men's Association, Buffalo.
United Retail Grocers' Association of Brooklyn.
Board of Trade of Saugerties.
Board of Trade, Poughkeepsie.
Ilion Board of Trade, Ilion.
Tonawanda Lumberman's Association.
Hay and Straw Dealers' Association of the State of New York.
New Rochelle Board of Trade.
Cold Spring Business Men's Association, Buffalo.
New York Furniture Warehousemen's Association, New York.
St. Lawrence County Dairymen's Board of Trade.
Oneida Chamber of Commerce, Oneida.
Board of Trade of the City of Kingston.
Herkimer Board of Trade.
Boonville Board of Trade.
Canal Enlargement Association, Buffalo.
Utica Dairy Board of Trade.

Boards of Supervisors of Oneida, Warren, Cortland and Monroe counties.

The Mayors of Buffalo, Schenectady, Little Falls, North Tonawanda, Troy, Cohoes, Oswego, Utica, Rome, Binghamton and Syracuse.

The village presidents of Ilion, Coxsackie, Herkimer, Frankfort, Oneida, Canastota, Whitesboro, Camden, Weedsport, Bronxville, Oriskany Falls, Sherburne, Canajoharie, Cattaraugus, Monroe, St. Johnsville, Cleveland, Fort Plain and Cortland.

The committee on permanent organization reported in addition to the names of the president, secretaries and treasurer, the names of vice-presidents and suggested the appointment of four committees of seventeen members each, viz., a Committee on Canals, a Committee on Railroads, a Committee on Taxation and a Committee on Miscellaneous Resolutions. They also recommended that the president, vice-presidents, secretaries and treasurer with the chairmen of the four committees be created a permanent State Committee to continue after the adjournment of the convention for the purpose of carrying out the objects of the convention. The report was adopted.

Hon. George B. Sloan of Oswego for the Committee on Canals, reported the following resolutions, and they were adopted by the convention with one dissenting vote:

WHEREAS, The commercial supremacy and the prosperity of the State of New York were created by conditions of traffic which were developed by the Erie, Oswego and Champlain canals and that from their inception these water ways have been efficient factors in preserving such prosperity and supremacy.

WHEREAS, The neglect in maintaining these canals in suitable condition, and the inefficient methods of transportation employed thereon have resulted in the decline of their efficiency and relative usefulness, so that they have become less important factors in controlling freight rates from the West to the Atlantic seaboard than formerly, principally because the same intelligence that has brought about the great development of the railroad systems, thereby increasing their efficiency and cheapness of service, has not been brought to the canal system.

WHEREAS, The Dominion of Canada, recognizing the power and influence of sufficient waterways in determining the course of traffic, has enlarged the canal connecting the Great Lakes with Montreal, and is contemplating the construction of a canal connecting Lake Huron directly with the St. Lawrence river, and thereby has increased the importance of Montreal and other Canadian seaports in such a way as to seriously threaten the trade of American ports.

Resolved, That the Erie, Oswego and Champlain canals ought to be materially improved to maintain the commercial supremacy of the State, thereby promoting the prosperity of its people.

Resolved, That the outlay in making such improvement would be a wise investment of money for the people of the State. With due regard, however, to public economy, we believe that the policy of the State should be on the line of improving the canals to secure the greatest benefit from the disbursement made in the shortest time. The improvements must be progressive and calculated to attain a definite object, and so made that each step will be complete in itself and give immediate benefits to commerce.

Mr. Sloan also reported the following resolution which was unanimously adopted by the convention:

Resolved, That we heartily approve of the application of Civil Service rules to the conduct of the canal system of this State.

Mr. Sloan also reported the following, which was adopted:

WHEREAS, Upon the preservation of our State forests depend the watersheds and natural water courses of the State, and upon these depends the water supply for our rivers and canals, and

WHEREAS, Our canals and rivers depend upon the preservation of our forests and our commerce depends upon the competition and cheap transportation afforded by our canals and rivers it is of vital importance that our forests shall be guarded from destruction, and that the spirit and letter of the provisions of the state constitution relating thereto shall be enforced; be it, therefore,

Resolved, That this convention is of the opinion that individual responsibility and individual accountability in all executive departments of the State government is productive of the best results, and believing that no reason exists why that principle might not be applied with advantage in the administrative work of the forests of the State, this convention respectfully requests the Legislature to consider the propriety of taking the necessary steps by the enactment of new laws or by amending existing laws to the attainment of that end.

Mr. Sloan also reported the following which were adopted:

Resolved, That the people of the State of New York, having provided a free waterway across the State connecting the great chain of lakes and all the vast regions tributary thereto with the Atlantic at its greatest harbor, the bay of New York, are entitled to the provision of the most ample terminals therefor.

Resolved, That the Dock Department of the City of New York be requested to encourage in every way the most ample accommodation for package and other freight for transmission by canal.

Resolved, That the Superintendent of Public Works and the Canal Board be requested to facilitate the creation of canal terminals in the Erie Basin at Buffalo, in which location the State owns property admirably adapted for the same, and thereby encourage the expenditure of private capital to make a point of free contract, or free transfer storage, between the vast lake marine on the one hand and canal craft on the other; all of which this convention believes to be absolutely essential to a restoration of prosperity to the canals of the State.

Other resolutions adopted dealt with other than canal interests.

THE SYRACUSE CONVENTION OF 1900.

The second annual State Commerce convention met at Syracuse, June 6 and 7, 1900. Hon. John D. Kernan presided, and the other officers were as follows:

Vice-Presidents: Wm. Bayard Van Rensselaer, Albany; Isaac Clark, Amsterdam; Albert W. Lawton, Auburn; Frederick C. M.

Lautz, Buffalo; Frank B. Baird, Buffalo; Knowlton Mixer, Buffalo; Alfred S. Targett, Cohoes; J. M. Diven, Elmira; John H. Morse, Fort Edward; E. R. Redhead, Fulton; James W. Green, Gloversville; A. B. Steele, Herkimer; Clarence W. Wyckoff, Ithaca; Henry E. Tremain, Lake George; P. H. McEvoy, Little Falls; George W. Knowles, Lyons; John T. Darrison, Lockport; Charles A. Gorman, Medina; R. P. Carpenter, New Rochelle; Wm. G. Smythe, New York; Franklin Edson, New York; Gustav H. Schwab, New York; Thomas W. Ormiston, New York; C. C. Shayne, New York; John V. Barnes, New York; Charles L. Adams, New York; George H. Tiemeyer, New York; Cornelius G. Kolff, Staten Island, N. Y.; S. V. V. Huntington, New York; A. M. Hall, Oswego; Thomas M. Costello, Altmar; Herbert H. Douglas, Oneida; Horace McGuire, Rochester; Henry C. Brewster, Rochester; Douglas N. Green, Syracuse; Edward Nottingham, Syracuse; Wm. H. Freer, Troy; W. Pierrepont White, Utica.

Secretaries: Frank S. Gardner, New York; John Cunneen, Buffalo; Correl Humphrey, Utica.

Treasurer: Harvey W. Brown, Rochester.

State Committee: John D. Kernan, Utica; Jerome DeWitt, Binghamton; Conrad Diehl, Buffalo; M. M. Drake, Buffalo; Jos. W. Cummin, Cornwall-on-Hudson; James Arkell, Canajoharie; Frank S. Oakes, Cattaraugus; James H. Mitchell, Cohoes; Charles A. Wardle, Catskill; E. M. Tierney, Elmira; Thomas D. Lewis, Fulton; W. M. Haskell, Glens Falls; H. C. Munger, Herkimer; Seth G. Heacock, Ilion; Frank Brainard, New York; A. Abraham, Brooklyn; G. Waldo Smith, New York; J. H. Gregory, Kingston; Timothy Deasey, Little Falls; R. B. Downing, Oneida; John T. Mott, Oswego; John R. Myers, Rouse's Point; A. C. Kessinger, Rome; Charles E. Angle, Rochester; F. E. Bacon, Syracuse; Theodore S. Fassett, Tonawanda; Wm. F. Gurley, Troy; John C. Hoxie Utica; Edw. P. Newcomb, Whitehall; Frank S. Gardner, New York; John Cunneen, Buffalo; Geo. B. Sloan, Oswego; H. S. Reynolds, Poughkeepsie; E. N. Trump, Syracuse; Richard Humphrey, Black Rock, Buffalo; Ludwig Nissen, Brooklyn; S. D. Coykendall, Rondout; George Clinton, Buffalo; George H. Raymond, Buffalo; Henry B. Hebert, New York; Willis H. Tennant, Mayville; C. P. H. Vary, Newark; Wm. A. Rogers, North Tonawanda; H. H. Brown, Spencerport; Charles P. Corbit, New York.

Executive Committee: John D. Kernan, Utica; G. Waldo Smith, New York; Frank Brainard, New York; Ludwig Nissen, Brooklyn; Conrad Diehl, Buffalo; Richard Humphrey, Black Rock, Buffalo; J. H. Mitchell, Cohoes; Charles A. Wardle, Catskill; John

C. Hoxie, Utica; Henry B. Hebert, New York; A. C. Kessinger, Rome; Frank S. Gardner, New York; F. E. Bacon, Syracuse; Harvey W. Brown, Rochester.

The Canal Committee presented the following report and resolution:

"We recognize that for three-quarters of a century the canal system of the State has been the principal factor in securing and promoting our commercial prosperity. The chief results have been the upbuilding of industrial and commercial centers along the lines of the canals and the making of New York City the commercial metropolis of the western hemisphere.

"These great centers of population have furnished markets for the agricultural products of the State. The continued growth and prosperity of these industrial centers are, therefore, vitally important to our agricultural interests.

"While affording cheap transportation for products raised and consumed by our people, the canals have kept down railway freight rates on local traffic in all parts of the State. While the railroads have minimized their operating expenses and laid out vast sums of money in multiplying their carrying capacity, no improvements have been made in canal facilities for nearly forty years. They have become inadequate to the requirements of our State's commerce. The vast canal tonnage that gave New York its supremacy is largely diverted to rival routes. One of these is a fourteen-foot canal completed this year from the Great Lakes to the seaboard, via the St. Lawrence river to Montreal. The interests of the great trunk lines prevent their protecting the commerce of this State. By agreements between them, establishing differential rates, a large portion of the commerce naturally tributary to New York has been taken from us. An improved canal will be an effective remedy.

"The experience of the world has shown that natural or adequate artificial water routes furnish today the cheapest possible transportation.

"The greatest centers of manufacturing prosperity are found where raw materials and manufactured articles can be moved to and from the factory at the lowest rates.

"An increase of manufacturing industries within the borders of the State of New York will, of necessity, benefit the farmer, the wage earner and the merchant, as well as the manufacturer.

"Your committee, therefore, recommends the adoption of the following:

"*Resolved,* That the future prosperity of the entire State requires the improvement and enlargement of its canals in a manner com-

mensurate with the demands of commerce and to a capacity sufficient to compete with all rival routes."

The Committee on Taxation reported; and the resolution of 1899 regarding forest preservation was again adopted.

Before adjournment, the president of the convention was instructed to appoint a committee not exceeding ten to attend the State conventions of all the political parties in this State, "to urge upon such conventions respectively the adoption of declarations in their platforms in favor of the improvement of the canal system of the State in accordance with the resolutions already adopted by this convention."

At the regular monthly meeting of the New York Board of Trade and Transportation next following this Syracuse convention the following report was submitted and read by the President, Mr. W. H. Parsons:

"NEW YORK, June 13, 1900.

"To the New York Board of Trade and Transportation:

"The second annual State Commerce Convention was held in the city of Syracuse on the 6th and 7th of June, instant. There were more than 250 accredited delegates present, about 100 more than attended the first State Commerce convention at Utica last October. The subject of canal improvement was again the center of greatest interest. The convention, with but one dissenting vote, adopted the following on that subject, viz.:

"'*Resolved*, That the future prosperity of the entire State requires the improvement and enlargement of its canals in a manner commensurate with the demands of commerce and to a capacity sufficient to compete with all rival routes.'

"The convention also adopted a report upon the subject of taxation which we suggest shall be referred to our Committee on Legislation.

"The important influence of the State Commerce conventions and the work done in that connection cannot be easily overestimated.

"On the 1st day of January, 1899, the canal improvement movement seemed dead beyond hope of resurrection. The temper of the people and the Legislature forbade any attempt at legislation looking to a continuance of the improvements. The policy of the Governor was undefined. With a view to revive interest, this board sent Mr. Wm. F. McConnell to visit representative men and organizations in the interior of the State. Emphatic opposition and discouragement were found everywhere. The old friends of the canal had

lost heart, and many of them were openly opposed to any further attempt to save the canals. We were unable to secure a single promise from any organization or individual for coöperation in an attempt to revive the canal movement. At that time the secretary of the board suggested the calling of a State convention on the broader ground of State commerce. He contended that State commerce embraced canal commerce; that the canal question would necessarily become prominent in any discussion of state commerce, and he predicted that the canal question would thereby be revived and possibly become the overshadowing topic in any representative gathering of the business men of this State. It was conceded everywhere that something must be done for our commerce, but no plan or policy had been formed, no measures outlined. Having in mind the State commerce movement, on the 8th of February, 1899, this board addressed a communication on the subject of canal improvement to Governor Roosevelt, declaring that 'the time has come for radical measures if New York is to preserve her proper commercial position.'

"On the 8th of March, 1899, this board appointed a special committee with instructions to call a state convention of representatives of organizations, cities, towns, etc., interested in preserving and promoting the commerce of this State.

"On the same day Governor Roosevelt appointed 'The Committee on Canals of New York State,' otherwise known as 'The Governor's Advisory Canal Committee.'

"The recommendations of the Governor's committee have been endorsed by the business men of the State, and the last Legislature passed the bill drawn by the secretary of this board appropriating $200,000 for the making of surveys in line with such recommendations.

"The question of canal improvement has, therefore, been raised from the point of despair to the position which makes it today the greatest State issue before the people. But there still remains much hostility in some parts of the State. It is, however, one of the questions that will grow in popularity with full investigation. The opposition is based upon misrepresentation and ignorance of the facts. The subject demands discussion and agitation. The welfare of the State demands the fullest consideration of the subject, for wherever the facts are made known there the cause gains enthusiastic advocates.

"From the first effort to reëstablish and enhance the efficiency of the canals down to the present time, covering a period of twenty-seven years, this board has been the leader in every movement, and

during most of that time a larger part of the labor, the drawing of the canal bills that have passed the Legislature, and the general management and conduct of the work has devolved upon the faithful and efficient secretary of this board, Frank S. Gardner."

At an adjourned meeting of the State Commerce convention, held in Syracuse, March 26, 1901, the Committee on Resolutions presented the following report, which, after full discussion, was adopted, viz.:

"The canal system of the State was the first great factor in the growth of the State of New York. During its seventy-five years of operation, it has been the means largely of building up throughout this State the greatest line of prosperous cities and villages that can be found anywhere on this continent. It made New York City one of the greatest seaports; it made Buffalo one of the greatest lake ports. By this growth of population throughout the State it has brought great benefits to all classes of our citizens: to the laboring man, to the farmer and to the merchant in all lines of commercial industry.

"In addition to its direct influence upon the prosperity of the State, it has been such a factor in controlling rates of freight that nowhere on this continent were rates of transportation by railroad and by water so moderate as in this State. The condition of the canal system of the State is most critical. The present and future commercial prosperity of the State is in great danger. Adequate improvement of the canals must be undertaken. Largely increased facilities for water transportation must be secured if the State's commercial supremacy is to be maintained; therefore,

"'*Resolved*, That it is the sense of this convention that the commercial interests of the State will be best fostered, promoted and protected by the construction of the one thousand ton barge canal.

"'*Resolved*, That a committee of nine, together with the president and secretary, be appointed by the president of this convention, which committee shall prepare and present to the Governor and Legislature the further reasons for its conclusions.'"

THE BUFFALO CONVENTION OF 1901.

The preliminary call for the third annual State Commerce convention was issued from the rooms of the New York Board of Trade and Transportation, July 29, 1901. The official call, fixing Buffalo as the place of meeting, appeared September 16th; and the convention opened at the Merchants' Exchange, Buffalo, October

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

16th. "The object of the convention," said the official call, "is to consider deliberately all matters relating to commerce and manufactures, and incidentally the laws and usages of business which now make for progress or hinder it. The convention will devote its labors to State questions only; but questions relating to the policy of this State dependent upon action by the General Government will also be admitted to discussion."

Representation was substantially as at former conventions. The official call said: "In order to secure the fullest consideration and debate practicable, every organization, city and village, submitting a proposition or resolution, is requested to appoint one of its delegates to make a leading address thereon, not to exceed thirty minutes, and to forward the name of such speaker and the title of his address to the secretary, in New York City, before October 5th, for printing in the official programme, stating the time he desires to occupy. . . . The aim now is, by creation of active associations in all important places where none exists, to so thoroughly and effectively organize the entire State in the interest of commerce and manufactures that hereafter the compact and irresistible influence of those interests shall no longer wait upon the will of others but exercise practical control of all actions affecting them. No locality in the State can afford not to be represented in the convention where questions of great importance to the State and all of its people are to be acted upon. Business men and manufacturers in cities and places having no active commercial body and urged to organize at once and appoint delegates to attend the convention, and submit for consideration such subjects of State and local importance as interest them."

Official organization at Buffalo was as follows:

President: Hon. John D. Kernan, Utica.

Vice-Presidents: Edward A. Durant, Albany; Thomas F. Kennedy, Amsterdam; Albert W. Lawton, Auburn; Ogden P. Letchworth, Buffalo; Fred. C. M. Lautz, Buffalo; George P. Sawyer, Buffalo; Alfred S. Targett, Cohoes; Seymour Dexter, Elmira; E R. Redhead, Fulton; James W. Green, Gloversville; A. B. Steele, Herkimer; Clarence W. Wyckoff, Ithaca; John McCausland; Timothy Deasey, Little Falls; Geo. W. Knowles, Lyons; John T. Darrison, Lockport; Stanley E. Filkins, Medina; Henry Scherp, New Rochelle; Franklin Edson, New York; Chas. A. Schieren, Brooklyn; Wm. G. Smythe, New York; Gustav H. Schwab, New York; Thos. W. Ormiston, New York; John V. Barnes, New York; D. LeRoy Dresser, New York; Albert Kinkel, New York; S. V. V. Huntington, New York; Cornelius G. Kolff, Staten Island; A. M.

Hall, Oswego; Thos. M. Costello, Altmar; Robert J. Fish, Oneida; Henry C. Main, Rochester; Henry C. Brewster, Rochester; Wilbur S. Peck, Syracuse; Wm. H. Freer, Troy; Henry D. Pixley, Utica; Geo. S. Dana, Utica; George A. Fuller, Watertown.

Secretaries: Frank S. Gardner, New York; John Cunneen, Buffalo; Correl Humphrey, Utica.

Treasurer: Harvey W. Brown, Rochester.

State Committee: John D. Kernan, Chairman, Utica; Jerome DeWitt, Binghamton; Alfred Haines, Buffalo; Henry B. Hebert, New York; Jas. Arkell, Canajoharie; Frank S. Oakes, Cattaraugus; Jas. H. Mitchell, Cohoes; Chas. A. Wardle, Catskill; E. M. Bucklin, Ithaca; Thos. D. Lewis, Fulton; M. M. Drake, Buffalo; Thos. S. Coolidge, Glens Falls; H. G. Munger, Herkimer; Seth G. Heacock, Ilion; Frank Brainard, New York; G. Waldo Smith, New York; Edward H. Kingsbury, Little Falls; Chas. N. Chadwick, Brooklyn; John T. Mott, Oswego; John R. Myers, Rouse's Point; A. R. Kessinger, Rome; Chas. E. Angle, Rochester; Francis E. Bacon, Syracuse; Theo. S. Fassett, Tonawanda; Fred M. Orr, Troy; John C. Hoxie, Utica; Edward P. Newcomb, Whitehall; Frank S. Gardner, New York; Geo. B. Sloan, Oswego; John Cunneen, Buffalo; H. S. Reynolds, Poughkeepsie; Richard Humphrey, Black Rock, Buffalo; Ludwig Nissen, Brooklyn; S. D. Coykendall, Rondout; Geo. Clinton, Buffalo; Albert L. Swett, Medina; S. H. Beach, Rome; George H. Raymond, Buffalo; Willis H. Tennant, Mayville; Wm. R. Corwine, New York; C. P. H. Vary, Newark; Wm. A. Rogers, North Tonawanda; Chas. A. Lux, Clyde; H. H. Brown, Spencerport; Chas. P. Corbit, New York.

Among the resolutions adopted were the following:

As reported by the Committee on Miscellaneous Resolutions:

"*Resolved*, That it be recommended to each trade to organize an association for the improvement of trade conditions, and

"*Resolved*, That a central organization, composed of delegates from the various trade associations be maintained for coöperation in measures to promote interests common to all the trades."

Also the following:

"*Resolved*, That while it is impracticable that this body shall suggest or recommend specific or detailed propositions for improving the methods of legislation in this State, we believe the subject to be of great importance to the welfare of the Commonwealth. In 1895, an expert commission appointed by Governor Morton investigated the subject and reported its conclusions with bills which were de-

signed to remedy the evils of 'over legislation,' to check the passage of 'slip-shod and ill-considered measures,' and to reduce the influence of the lobby to a legitimate sphere. The necessity for some reforms in this direction is patent to all observers of legislative methods, and especially to those whose interests are so often assailed by the introduction and passage of bills of which no previous notice is given, and the knowledge of which is obtained only by accident or by maintaining at great expense a system of constant vigilance.

"Resolved, That we respectfully request His Excellency, the Governor, and the members of the Legislature to give the subject of methodizing legislation their most careful consideration."

"WHEREAS, A portion of the Cob Dock maintained by the United States is an obstruction to navigation in the East River, and a bill has been introduced in Congress for its removal.

"Resolved, That this convention approves the object, and recommends suitable action by the United States, the State and city to thus improve this channel."

"Resolved, That this convention most earnestly favors the establishment of a Department of Commerce, urges action by Congress in that regard and recommends individual solicitation of our Representatives, and that the secretary of this convention transmits this resolution to similar bodies for like action."

Adopted as reported by the Committee on Taxation:

"Resolved, That the State Commerce convention reiterates its resolution: 'That the best way to reform the system of local taxation is to grant local option in taxation to the cities and counties of the State,' and to carry this resolution into effect, recommends the passage of the Bill for the Apportionment of State Taxes and for Local Option in Taxation, prepared by the New York Tax Reform Association, and unanimously endorsed by many organizations, some of which are members of this convention.

"Resolved, That this convention endorses the following resolution on taxation unanimously adopted by the National Tax Conference:

" 'This conference recommends to the States the recognition and enforcement of the principles of inter-state comity in taxation. These principles require that the same property should not be taxed at the same time by two State jurisdictions and that if the title deeds or other paper evidences of the ownership of property or of an interest in property are taxed, they shall be taxed at the situs of

the property and not elsewhere. These principles should also be applied to any tax upon the transfer of property in expectation of death, or by will, or under the laws regulating the distribution of property in case of intestacy.'"

This was adopted as reported by the Committee on Canals. The official minutes further say:

"Our canal system was the first great factor in the growth of our State. During its seventy-five years of operation it has made New York City one of the greatest seaports in the world. It has made Buffalo one of the greatest lake ports. It has built up a line of the richest and most populous cities and villages connecting the two that can be found anywhere on this continent.

"The consequent increase of population and industry has brought untold benefits to all classes of our citizens; to the laboring man, to the mechanic, to the farmer and to the merchant in all lines of commercial industry.

"In addition to its direct influence upon the prosperity of the State, it has been the chief factor in controlling and regulating freight rates. Its influence in this particular has rapidly declined during recent years.

"Through failure to adequately improve its waterways, the State has experienced a marked falling off in its proportion of the commerce of the country. There is every prospect of still further decline in the future, with consequent increasing injury to all the material interests of the State, unless checked by proper canal enlargement. The condition of our canal system is most critical. The present and future prosperity of the State is in great danger. Continued neglect of our waterways is encouraging Canadian and other competition.

"Vast combinations of railroad interests have destroyed all railway competition. The produce of the western farmer is carried by rail at lower rates than are given to the farmers of New York. The manufacturers of adjacent states receive like advantages over our own manufacturers. These discriminations are injurious.

"Largely increased facilities for water transportation must be secured under State control if our commercial supremacy is to be maintained. The result will be a marked increase in local traffic on the canals, with cheaper freight rates on all our merchandise to and from the seaboard.

"An adequate improvement of these waterways will also promote a large growth in the manufacture of iron and steel, and will stimulate the development of other manufacturing enterprises throughout

the State. This means a vast increase in our population to meet the new demands for labor, which will furnish the farmer a larger and better home market for his products. It means great benefits to all classes within our State, whether merchants, manufacturers, farmers, mechanics or laboring men.

"In the improvement of the canals the development of industry on the State's inland lakes now connected with the canal system should be encouraged, and adequate facilities for their commerce should be provided.

"A State commission, composed of able engineers and business men, have, after full investigation, decided that the proper and best solution of these problems of water transportation requires the construction of a barge canal through the State of New York with a capacity sufficient for boats carrying one thousand tons.

"'As representatives of its progressive business organizations, we believe that the Empire State, both in wealth and population, can well afford to accept the best plan for insuring its commercial prosperity.

"At this the third session of the State Commerce convention which has considered the subject of adequate canal improvement in all its phases, we hereby reaffirm our former conclusions; therefore, be it

."'*Resolved,* That it is the sense of this convention that the commercial interests of the State will be best fostered, promoted, and protected by the construction of the one thousand ton barge canal.'

"Adopted as reported by the Committee on Canals; with the following supplementary resolution:

"'*Resolved,* That the Legislature be requested to provide for a survey and estimate of the cost of adequately improving Cayuga and Seneca lakes, and the Cayuga and Seneca canal, in connection with any improvements which may be made on the Erie canal, that there may be a free interchange of traffic with that section of the State served by those waterways.'

"The following was referred to the Committee on Railroads. The committee held no meeting after the reference and was discharged from its consideration. The convention discussed and adopted it in open session.

"By an Act of Congress passed in 1886 an Interstate Commerce Commission was appointed to generally consider the railroad question of the United States and to prevent unjust discrimination against its citizens by the railroads.

"For fourteen years the Commission was composed of the most eminent men of the country, and expending vast sums have endeavored to carry out the provisions of this Act.

"The following quotation from the last report of the Commission [Dec. 1900] shows the utter failure of the effort of the people to save themselves from the discrimination and abuses practiced by the railroads of this country.

"'In its late report of December 24, 1900, the Commission says that railroad managers generally make no attempt to obey the law, and claim that they are compelled to counteract its aim and evade its observance; that frequent discriminations occur and endless acts of injustice are committed in railroad service and charges; that railroad combinations have been formed and are certain to be formed, which will be more extensive, more permanent and more far reaching in their ultimate results than in any other department of industry; that no matter whether unity of interest be secured through consolidations, leases or holdings of each other's stock, the aim always is the same, that is, to stop competition, inflate securities, advance rates and enforce classifications beneficial to the railroads; that it will soon lie within the power of two or three, or at most a small group of men, to say what tax shall be imposed upon the vast traffic moving between the east and the west by rail; that 824 changes were made in the official classification on January 1, 1900, by carriers using that classification, of which 818 produced advances in rates and six resulted in reductions. Based on Chicago-New York rates, of these advances 434 increased the rate 42.8 per cent. and 32 as low as 15.3 per cent. Six of the advances amounted to 100 per cent. of the old rate. The average advance was 35.5 per cent.

"The Commission finds that these advances are not justified by need of revenue, or increased cost of operation, as claimed by railroads; that increase of traffic has made the percentage of operating expenses to earnings less than the average from 1890 to 1898; that slight increases make an enormous aggregate; that one cent a bushel on all the grain passing through the port of Buffalo, 1899, would amount to $1,500,000 and applied to all grain moved by rail in the United States for that year it would have aggregated almost $10,000,000; therefore

"*Resolved,* That it is the sense of this convention that in view of this unjust discrimination against the people of the State on the part of railroads, we must preserve, enlarge and improve our State lakes, rivers and canals, as the only safeguards for our people against such excessive railroad rates and unjust discrimination, and as regulators of all through and local railroad rates in our State.

The convention also adopted the following:

"*Resolved,* That the State Committee be requested to take such steps as it deems proper to present the action of this convention to the Governor and the Legislature."

The programme of the Buffalo convention included the following papers, addresses, etc.:

SESSIONS OF WEDNESDAY, OCTOBER 16TH.

Address of Welcome, Mr. O. P. Letchworth, President Buffalo Merchants' Exchange.

Report of the Roll of the Convention—Executive Committee.

Appointment of Committee on Miscellaneous Resolutions; on Taxation; on Railroads; on Canals; on Nominations.

Address, "Taxation," by Lawson Purdy of the New York Tax Reform Association.

Address, "Trade Associations and Coöperation," by Marcus M. Marks, President, The Clothiers' Association of New York.

Address, "Contracts Printed on Railroad Tickets," by Mr. Willis H. Tennant of Mayville.

Address, "Methodizing of Legislation," by Mr. William McCarroll of New York Board of Trade and Transportation.

Address, "Removal of Cob Dock at Brooklyn Navy Yard," by Mr. Charles N. Chadwick of Manufacturers' Association of New York.

Address, "The Future Canal System of the State of New York," by Capt. M. M. Drake of the Buffalo Merchants' Exchange.

Address, "The Business Interests of Western New York and the Barge and Ship Canal Propositions," by Mr. S. E. Filkins of the Medina Business Men's Association.

Address, "The Proper Position for Rochester on Water Transportation," by Mr. Horace G. Pierce of the Rochester Wholesale Grocers' Association.

SESSION OF THURSDAY, OCTOBER 17TH.

Address, "The Waterway Question—An Adequate Solution from Niagara to the Sea," by Mr. John A. C. Wright of the Rochester Chamber of Commerce.

Address, "Practical Water Transportation for the State of New York," by Mr. Henry C. Main of the Rochester Retail Grocers' Association.

Address, "A Comparison of the Barge Canal with Deep Waterways," by Mr. George W. Rafter, C. E., of the Rochester Chamber of Commerce.

Address, "Ship versus Barge Canal," by Capt. Charles Campbell of the Marine Industrial League of New York.

Address, "Waterborne Freights," by Mr. Lewis Nixon of the New York Board of Trade and Transportation.

Address, "The Preservation of our Waterways," by Mr. Thomas Dorrity of the Western Waterway Transportation League of Northwestern New York.

Address, "The Practical and the Impractical in Water Transportation for the State of New York," by Mr. Gordon W. Hall of Lockport, Mayor's delegation.

Address, "The Importance of the Thousand Ton Barge Canal to Western New York," by Mr. Edward I. Taylor of the Lockport Business Men's Association.

Address, "Importance of the Canal Waterways," by Mr. John McCausland of Rondout, Mayor's delegation.

Address, "The Erie Canal Vital to Best Interests of the State of New York," by Dr. J. D. Bonnar of North Main Association, Buffalo.

The sessions of Friday, October 18th, were devoted to open discussion and miscellaneous business.

Proposed by Willis H. Tennant, alternate for president, of Mayville:

"*Resolved,* That the Legislature should forthwith enact a law making it unlawful for any transportation company doing business in this State, to issue or sell any passenger ticket or coupon designed as evidence of the right of the purchaser or owner thereof to a ride thereon, or because of the same, within the State of New York; excepting such tickets or coupons as shall be good and valid until used by the bearer of the same, in the usual course of business and travel; and making all contract provisions inserted or endorsed upon any such ticket or coupon, in conflict with the foregoing, absolutely void."

Proposed by Clothiers' Association of New York:

"*Resolved,* That it be recommended to each trade to organize an association for the improvement of trade conditions; and

"*Resolved,* That a central organization, under the direction of this convention, composed of delegates from the various trade associations be maintained for coöperation in measures to promote interests common to all the trades."

Proposed by New York Tax Reform Association:

"*Resolved*, That the State Commerce convention reiterates its resolution: 'That the best way to reform the system of local taxation is to grant local option in taxation to the cities and counties of the state' and to carry this resolution into effect, recommends the passage of the Bill for the Apportionment of State Taxes and for Local Option in Taxation, prepared by the New York Tax Reform Association and unanimously endorsed by many organizations, some of which are members of this convention.

"*Resolved*, That this convention endorses the following resolution on taxation unanimously adopted by the National Tax conference:

"'This conference recommends to the states the recognition and enforcement of the principles of inter-State comity in taxation. These principles require that the same property should not be taxed at the same time by two state jurisdictions, and that if the title deeds or other paper evidences of the ownership of property or of an interest in property are taxed they shall be taxed at the situs of the property and not elsewhere. These principles should also be applied to any tax upon the transfer of property in expectation of death, or by will or under the laws regulating the distribution of property in case of intestacy.'"

Proposed by the Rochester Chamber of Commerce:

"All the Great Lakes lying in the continental basin, except Ontario, having been united by the United States at their proper expense;

"*Resolved*, That the State Commerce convention of New York favors a deep waterway around Niagara this side, extending into Lake Ontario, and to New York State the commerce and development that has followed the opening of adequate channels in the upper lakes, and forming a trunk water route in this basin, and

"*Resolved*, This convention recommends the same to the Federal Government for action, and requests coöperation on the part of the State."

Also the following:

"The Federal Government having surveyed a deep waterway through the Great Lakes to the seaboard by the Hudson, as recommended by a United States Commission appointed by the President;

"*Resolved*, That it is the sense of this convention that the same should be considered in connection with State canal improvement, and coöperation on the part of the State and National Governments

be sought to the end that such Federal way shall serve both uses, where routes are common, upon satisfactory terms, and our State canal system be dovetailed with it—insuring most efficient channels at least expense to the State."

Proposed by the Buffalo Merchants' Exchange:

"WHEREAS, Through forty years' neglect of its waterways the State of New York has experienced during recent years a marked falling off in its share of the commerce between the West and the seaboard, with the prospect of a still further decline in the future, entailing severe injury to the material interests of the State; and

"WHEREAS, There is reason to think that in addition to regaining this loss of traffic and preventing its further loss, an adequate improvement of these waterways would also promote a large growth in manufacturing within the State, and would enable manufacturers of this State to obtain better access to the mineral and other raw material produced in the northwest lake region, and give them decided advantages over the manufacturing industries of other States; and

"WHEREAS, Such manufacturing growth and such revival and growth of the export trade from New York City, would necessarily bring a large increase of population and wealth to the State, and would be of continued and great benefit to all classes of the community, whether merchants, manufacturers, farmers or laboring men; and

"WHEREAS, A State commission, composed of able engineers and business men, have, after full investigation, decided that the proper and best solution of the problems of water transportation from the Lakes to the Seaboard requires the building of a barge canal through the State of New York with a capacity sufficient to float barges carrying one thousand tons, and have submitted facts and arguments in support of such a barge canal which have never been controverted and are unanswerable; therefore,

"*Resolved*, That we urge the Governor of the State of New York and upon the Legislature the importance and necessity of providing for a thousand ton barge canal in the shortest possible time, in order that the State may retain its present commercial and industrial interests and may obtain in the future the commercial and industrial supremacy to which its geographical position, its wealth and the character of its population entitle it."

Proposed by John McCausland of Kingston, Mayor's delegate:

"*Resolved*, That the people of the State of New York, through their representatives, give more attention, in the future, to the canal

waterways that are the people's property and not allow them to be abandoned or become of secondary importance, through neglecting to keep them in condition to meet the increased demands of trade.

"All parts of the State, directly or indirectly, are interested."

Proposed by the Constantia Board of Trade:

[A long set of preambles and resolutions relating to railroad, grain elevator and wharf charges, favoring State elevators, opposing use of the canals and other water transportation by railroads, urging repeal of pilotage laws and urging improvement of the canals on one thousand ton barge plan and opposing "all seaboard freight discriminations."]

Proposed by the New York Board of Trade and Transportation:

"Resolved, That while it is impracticable that this body shall suggest or recommend specific or detailed propositions for improving the methods of legislation in this State, we believe the subject to be of great importance to the welfare of the commonwealth. In 1895, an expert commission appointed by Governor Morton, investigated the subject and reported its conclusions with bills which were designed to remedy the evils of 'over legislation,' to check the passage of 'slip-shod and ill-considered measures,' and to reduce the influence of the lobby to a legitimate sphere. The necessity for some reforms in this direction is patent to all observers of legislative methods, and especially to those whose interests are so often assailed by the introduction and passage of bills of which no previous notice is given, and the knowledge of which is obtained only by accident or by maintaining at great expense a system of constant vigilance.

"Resolved, That we respectfully request His Excellency, the Governor, and the members of the Legislature to give the subject of methodizing legislation their most careful consideration.

Proposed by the Manufacturers' Association of New York:

"WHEREAS, The Government of the United States at present maintains a cob dock opposite the Navy Yard in the East River, which cob dock is not only of no advantage to the Government, but is in fact an obstruction to navigation and to the complete utilization of the Navy Yard property; and,

"WHEREAS, For the purpose of removing said obstruction and of improving the navigation of said river, a bill has been prepared and introduced in the Congress of the United States, which bill is known and designated as 'S. 2473,' and which is now before the Committee on Naval Affairs of the House of Representatives; and,

"WHEREAS, Said improvement will be of great permanent advantage to the commerce of the State of New York, including the commerce of the Erie Canal and the exchange of products of this State and other States which are brought to the seaboard by the various railroads centering at this point where vessels from all parts of the world will find a convenient outlet; and,

"WHEREAS, It is fair and proper that the expense of such improvement should be borne proportionately by the State of New York and by the city of New York, the total amount of which expense is estimated to be $1,250,000;

"Resolved, That this convention does approve of the object set forth in this preamble to this resolution and of the bill prepared in furtherance thereof and now under consideration by Congress, and does recommend that said bill be passed and that the State of New York at the next session of the Legislature thereof by proper legislation take the necessary steps and make and authorize the proper appropriations for carrying into effect the provisions of said bill."

The convention also adopted and endorsed the resolution drawn up at the adjourned meeting in Syracuse, March 26, 1901, advocating the construciion of the one thousand ton barge canal, as printed on a preceding page.

GUSTAV H. SCHWAB.

NEW YORK CITY'S PART

IN THE

RECONSTRUCTION OF THE STATE'S WATERWAYS

BY GUSTAV H. SCHWAB

Chairman, Committee on Foreign Commerce and the Revenue Laws, Chamber of Commerce, State of New York; Chairman of the Canal Improvement State Committee; etc., etc.

The business interests of New York for a number of years have borne the burden of the fact that their city and port has steadily been losing the share of the export and import traffic of the whole country to which it is entitled.

The report made to the Chamber of Commerce of the State of New York by its Committee on the Harbor and Shipping in February, 1898, on the diversion of trade from New York, showed that the "proportion of imports through New York fell from 69 per cent. in 1877 to 63.3 per cent. in 1897, while the imports of all other ports rose from 31 per cent. to 36.7 per cent. The percentage of the domestic exports from New York fell from 43.6 per cent. in 1877 to 41.5 per cent. in 1897, while the exports of all of the United States ports increased from 56.4 per cent. to 58.5 per cent. of the whole." During the twenty years from 1877 to 1897 the same report showed a total decrease of the commerce to and from New York from 53.7 per cent. to 51 per cent., and an advance of all other ports from 46.3 per cent. to 49 per cent. According to the Chamber's annual report for the

fiscal year ending June 30, 1902, the total foreign commerce of New York City, during the year ending June 30, 1902, suffered a decrease of $43,198,321, as compared with the same period of the previous year, and $23,756,248 as compared with the period ending June 30, 1900; thus showing a growing decrease during the period comprised by these three years.

The report of the Commerce Commission appointed by Governor Black in the year 1898 to examine into the commerce of New York, the cause of its decline, and to suggest means for its revival, contained testimony proving conclusively that the commerce of the State of New York was at the mercy and under the control of certain railroad combinations which, through discrimination, diverted traffic to other ports and other States as might best suit their convenience or their particular interests. The business men of New York were helpless to meet these combinations and discriminations, for it was a fact patent to all that the Erie Canal was in a condition verging on uselessness, utterly unable to compete with the service given by the railroads and, therefore, incapable of fulfilling its former vocation of a regulator of transportation rates.

The conclusions to which the business interests of New York were forced, were those formulated by the Committee on Interstate Commerce of the United States Senate, years before, as follows:

"The evidence before the Committee accords with the experience of all nations in recognizing water routes as the most efficient cheapeners and regulators of railroad charges. Their influence is not confined within the limits of the territory immediately accessible to water transportation, but extends further, and controls railroad rates at such remote interior points as have competing lines reaching means of transportation by water.

"Competition between railroads sooner or later leads to combination or consolidation, but neither can prevail to force unreasonable rates in the face of direct competition with free natural or artificial routes. The conclusion of the Committee is, therefore, that natural or artificial channels of communication by water when favorably located, adequately improved and properly maintained, afford the cheapest methods of long distance transportation now known, and

that they must continue to exercise in the future, as they have invariably exercised in the past, an absolutely controlling and beneficially regulating influence upon the charges made upon any and all means of transit."

The unsatisfactory outcome of the canal improvement plan of 1895, under which it was proposed to expend $9,000,000 in the enlargement of the Erie Canal to a depth of nine feet, created in the minds of the business men of New York a feeling of great disappointment, and at the same time gave rise to renewed discussion of the subject of thorough and extensive canal improvement. This discussion culminated in the adoption by the Board of Managers of the New York Produce Exchange on September 21, 1899, of the following preamble and resolutions, which were drafted by a sub-committee of the Canal Committee of the Exchange, consisting of Messrs. Frank Brainard, Gustav H. Schwab, and John P. Truesdell:

WHEREAS, The commercial supremacy and the prosperity of the City and State of New York were created by conditions of traffic which were developed by the Erie Canal, and that from its inception this waterway has been one of the most efficient factors in preserving such prosperity and supremacy;

WHEREAS, By reason of the decay in the physical condition of the Erie Canal, and the antiquated methods of transportation employed thereon, its efficiency and relative usefulness have greatly declined, and have in fact shrunken into insignificance in comparison with other means of transportation; so that the canal has almost ceased to be a factor in controlling and modifying freight rates from the West to the Atlantic Seaboard, or in influencing the distribution of traffic as between the different competitive points upon the seaboard; principally because the same intelligence that has brought about the great development of the railroad systems, thereby increasing their efficiency and cheapness of service, has not been brought to the Canal System;

WHEREAS, The combination and consolidation of the interests of different railroad trunk lines, which have heretofore been competitors for export traffic, and which are now uniting, and which in future will probably more and more unite under single systems of management, will destroy the motive which has in the past induced certain great railway systems to protect the Port of New York in the distribution of traffic;

WHEREAS, The Dominion of Canada, recognizing the power and influence of sufficient waterways in determining the course of traffic, has enlarged the canal connecting the Great Lakes with Montreal, and is contemplating the construction of a canal connecting Lake Huron directly with the St. Lawrence River, and thereby has increased the importance of Montreal and other Canadian seaports in such a way as to seriously threaten the trade of American ports;

WHEREAS, The conviction is growing upon us that the enlargement and improvement of the Erie Canal to a depth of nine feet, which has already cost the State nine millions of dollars, and which will cost many millions more, will at the best afford but temporary relief, and that the maintenance of the position of the Port of New York in control of the greater part of the imports and exports of the United States, can be permanently secured only by an enlargement of the waterways connecting the Great Lakes with the Hudson River to such an extent as to finally determine such route to be the cheapest, notwithstanding any possible competition from the railway systems or other waterways; therefore, be it

Resolved, That in the opinion of your Committee the true policy of the State of New York should be the construction of a waterway connecting Lake Erie with the Hudson River, of a much greater carrying capacity than can be afforded by the plan of improvement which has been begun. That the principal benefits which will be conferred upon the State will be far in excess of any possible cost of such enlarged waterway; that we favor the construction and maintenance of a canal of a depth of not less than fourteen feet with corresponding width; that, if it is necessary, a new alignment of the canal should be made by canalizing the Mohawk, Seneca and Clyde rivers;

Resolved, That the Board of Managers of the New York Produce Exchange be requested to urge the speedy construction of such a canal, and by official action pledge the Exchange to hearty support of legislation tending to that end.

Thus at the beginning of the campaign for genuine and effective canal enlargement the export interests of New York City, represented by the New York Produce Exchange, raised the standard of canal improvement which they considered essential and, as the sequel shows, led the fight for canal improvement on these lines to ultimate success at the polls, except that the depth of the canal, as finally adopted, was twelve feet instead of fourteen feet.

With a view to reviving the movement for canal improvement, the New York Board of Trade and Transportation, in the fall of 1898, appointed a special committee for the purpose of conferring with other organizations and, if deemed advisable, to call a State Canal Improvement Convention. This movement resulted in the calling of a State Commerce Convention which met in the city of Utica on October 10, 1899, and which adopted resolutions calling for the material improvement of the Erie, Oswego and Champlain canals as a wise investment for the people of the State. The convention at Utica was followed by a second convention held in Syracuse on June 6, 1900, and by a third held in Buffalo on October 16, 1901, at which resolutions demanding the improvement and enlargement of the State canals were adopted. Many of the influential commercial bodies of the State were represented at these conventions and the discussion of the canal question contributed materially towards rousing the interest of citizens in the improvement of the State's water-ways.

The New York Board of Trade and Transportation on February 8, 1899, adopted resolutions drawing the attention of the Governor and State Legislature to the danger that threatened the commerce and supremacy of the City of New York through rival seaboard cities and through Canadian competition, and demanding the immediate enlargement and improvement of the State's canals, and the abolition of railroad discriminations and of taxes on commerce. This was followed by the appointment by Governor Roosevelt on March 8, 1899, of the Committee on Canals of New York State, of which Gen. Francis V. Greene, U. S. Army, was chairman. The able report of this committee calling for the construction between the Great Lakes and the Hudson River of a canal of a capacity sufficient for the passage of barges of 1,000 tons burden, became the chief weapon in the hands of the canal interests in their campaign for canal improvement.

Looking toward the initiation of an active movement in favor of the enlargement and improvement of the canals of the State on the lines of the resolutions adopted by the New

York Produce Exchange, the commercial organizations of Greater New York were invited to meet the Canal Committee of the Exchange for consultation with regard to the enlargement and improvement of the State canals. The meeting was held on December 12, 1899, in the managers' room of the New York Produce Exchange, the following commercial organizations of Greater New York being represented:

Chamber of Commerce of the State of New York.
New York Board of Trade and Transportation.
Merchants' Association of New York.
Maritime Association of the Port of New York.
Staten Island Chamber of Commerce.
Merchants' and Manufacturers' Board of Trade.
New York Manufacturers' Association.
Canal Boat Owners' Association.

The members of the Committee on Canals of New York State appointed by Governor Roosevelt; and

The members of the Committee on Canals of the New York Produce Exchange.

Mr. Henry B. Hebert, chairman of the Committee on Canals, presided and addressed the meeting, showing the diversion to other ports of inland commerce which had so far been tributary to the Port of New York; tracing the relation of the railroads to this diversion of traffic, and finally discussing the practical measures that could be adopted to restore to New York the commerce of the interior and permanently to reëstablish its preëminence in trade. Mr. Hebert in his address referred to the resolutions adopted by the Board of Managers of the New York Produce Exchange on September 21, 1899, stating that these resolutions reflected the best judgment of the active members of the Produce Exchange, who not only had contributed most largely to the business of the canal, but who were intimately acquainted with the competitive conditions affecting canal transportation. In his address Mr. Hebert took the position that a nine-foot canal, such as proposed under the improvement of 1895, would be the same feeble competitor that the present canal is as a transportation factor, the only

solution being the construction of a modern water-way of large dimensions, connecting Lake Erie with tide water on the Hudson River, as an essential condition to the continued commercial supremacy of the State.

In the discussion that followed, the representatives of the various commercial organizations present expressed their approval of the plan for a barge canal contained in the report of the Committee on Canals of New York State to the Governor; and General Francis V. Greene, Chairman of the Committee on Canals of New York State, addressed the meeting on the various propositions made by his committee for the improvement of the State's water-ways.

Further conferences were held between the Canal Committee of the New York Produce Exchange and the Committee on Canals of New York State for the discussion of the question of canal enlargement, and on March 7, 1900, a conference of representatives of various commercial organizations of Greater New York with the Committee on Canals of the New York Produce Exchange, and the Committee on Canals of New York State was held in the Produce Exchange. There were present representatives of the

New York Produce Exchange,

Maritime Association of the Port of New York,

New York Board of Trade and Transportation,

The Merchants' Association of New York, and

The members of the Committee on Canals of New York State, appointed by Governor Roosevelt.

At this meeting a resolution was adopted endorsing the proposed expenditure of $200,000 for a thorough survey for the improvement of the Erie Canal, the Champlain Canal and the Oswego Canal, also favoring the proposition to remove the limitation of $50,000 capitalization on corporations navigating the canals, and appointing a committee of twenty-five to prepare proper bills, and to present and urge their passage before the Legislature.

The bill providing for the survey was drawn by Mr. Frank S. Gardner, Secretary of the New York Board of Trade and Transportation, and was introduced by the Hon. Henry W. Hill in the Assembly on March 5, 1900. The

committee of twenty-five appointed by the chairman of the Committee on Canals attended the hearing on this bill before the legislative committees at Albany and urged favorable action upon it.

The New York Produce Exchange on January 26, 1900, invited the commercial organizations of the Port of New York to join it in tendering a banquet to Governor Theodore Roosevelt, to which were to be invited as guests of honor the Committee on Canals of New York State, appointed by Governor Roosevelt, and the New York State Commerce Commission appointed by Governor Black, as an expression of the appreciation of the mercantile associations of the City of New York of the efforts of these two committees in furthering the improvement of the State Canals and the commercial interests of the city and State.

An executive committee of twenty-five was appointed by the President of the Exchange to arrange with other commercial bodies for this banquet.

The following commercial organizations coöperated with the Committee on Canals and other members of the New York Produce Exchange in this banquet:

The Chamber of Commerce of the State of New York,
The New York Board of Trade and Transportation,
The Merchants' Association of New York,
The Maritime Association of the Port of New York,
The Merchants' and Manufacturers' Board of Trade,
The New York Board of Fire Underwriters,
The New York Board of Marine Underwriters,
The Cotton Exchange,
The Coffee Exchange,
The Real Estate Exchange,
The Canal Boat Owners' and Commercial Association of the State of New York,
The Mercantile Exchange,
The Manufacturers' Association of New York, and
The Lumber Trade Association.

A number of representative gentlemen were selected from these organizations to act as a General Committee to have charge of the dinner, from which an Executive Committee

was formed, the following being appointed members of this Executive Committee to take charge of the details of the dinner: Gustav H. Schwab, A. B. Hepburn, Franklin Quinby, Alfred Romer, Vincent Loeser, S. Cristy Mead, Henry Hentz, J. A. Heckman, Samuel D. Coykendall, Evan Thomas, E. L. Boas, Darwin R. James, W. E. Cleary, Hermann Sielcken, Elliott T. Barrows, Henry A. Hebert, John P. Truesdell, Oswald Sanderson, William R. Corwine, J. Montgomery Hare, Lewis H. Spence, F. B. Thurber, Henry A. McGee, A. H. McKnight, William Brookfield, John V. Barnes, Julius D. Mahr, S. DeWaltearrs, G. W. Vanderhoef.

Mr. Gustav H. Schwab was elected chairman of the Executive Committee, appointed to arrange for the dinner, Mr. Oswald Sanderson, treasurer, and Mr. William R. Corwine, secretary.

The following guests accepted the invitation to the banquet tendered to Governor Roosevelt:

The Hon. Timothy L. Woodruff, Lieutenant Governor.

The Hon. Chauncey M. Depew, United States Senator.

The Hon. Andrew H. Green, C. C. Shayne and Alexander R. Smith, of the New York State Commerce Commission.

Gen. Francis V. Greene, John W. Scatcherd, Major Thos. W. Symons, Frank S. Witherbee, John W. Partridge and John A. Fairlie, of the Committee on Canals of New York State.

The Hon. H. W. Hill, the Hon. Thos. D. Lewis, the Hon. Gherardi Davis, the Hon. Perez M. Stewart, the Hon. William E. Wheeler, the Hon. J. P. Allds and the Hon. John Ford, of the Assembly Committee on Canals.

The Hon. E. A. Bond, State Engineer and Surveyor; the Hon Fred. S. Nixon, Speaker of the Assembly; and Frank S. Gardner, Secretary of the New York Board of Trade and Transportation.

The dinner was held at the Waldorf-Astoria on March 10, 1900, Mr. William E. Dodge, of the firm of Phelps, Dodge & Co., acting as chairman.

In his address Mr. Dodge called attention to the courage and skill with which Governor Roosevelt, the guest of the evening, had taken hold of the large questions which most

deeply touch the interests of the State, and how he had appointed a commission to study the great question of internal navigation, on which the commercial supremacy of New York depended. Mr. Dodge referred to the proud position of the Empire State in population, in wealth and in influence, and urged that this supremacy should be upheld.

Governor Roosevelt in his address pointed to the fact that the wealth and unrivalled geographical advantages of New York had made its citizens feel secure against possible competitors; that while these competitors had combined against New York, New York had sunk back, content to rely upon the belief that so long a lead could never be cut down. The Governor called attention to the one great advantage enjoyed by the State of New York over all other ports, save the winterbound ports of Canada, namely, the break in the great mountain system which stretches from the St. Lawrence to Georgia. New York alone can have direct communication by water with the vast grain-fields and the deep beds of coal and iron in the interior. A really adequate water-way from Lake Erie to the mouth of the Hudson would make Buffalo a possible rival of Chicago, and would put her far beyond the chances of rivalry with any other city on the Great Lakes. It would make her in all human probability the center of the iron industry of the country. It would remove that fear of Montreal's rivalry which now haunts her foremost merchants.

Governor Roosevelt then gave utterance in his address to the obligations under which the citizens of New York were to the gentlemen composing the Committee on Canals of New York State, appointed by him, and the New York State Commerce Commission appointed by his predecessor, Governor Black. He urged that New Yorkers must in the first place keep steadily before their minds the all-important fact that the canal is not an outworn method of transportation. During the lifetime of the present generation the canal system has received a greater degree of development than the railroad system in every European country, where the topographical conditions permit of its existence at all.

In the second place, the Governor urged that there should be no party division on what is primarily and purely an economic question, and that the one chance of so building this canal that every dollar expended will represent a gain of one dollar to the State, lay in building it on the strictest business basis, and this necessarily implied that it must not be made the football of partisan, factional or personal politics. In other words, those who build and administer it must do their duty solely as administrators and engineers, and not as politicians.

General Francis V. Greene, chairman of the Committee on Canals of New York State, spoke on "The Improved Canal and its Results," stating the reasons why a ship-canal of the length of the Erie Canal would not be economically possible, and giving the details of the plan proposed by his committee for a one thousand ton barge canal.

General Greene read an interesting letter from Mr. Andrew Carnegie in support of his views, in which Mr. Carnegie congratulated the Canal Committee in going far enough and not too far. Mr. Carnegie made the following pertinent statement in his letter:

> "To spend money upon the present plans for a canal would be a mere waste, while to spend the sum you name for a thousand-ton barge canal, is, in my opinion, essential if New York is to maintain her relative position. The recent purchase of railway stocks of the trunk lines by the two more prominent lines, thus insuring mutuality of interest, must inevitably work against New York and in favor of the shorter rail line to tide water at Newport News, Baltimore and Philadelphia. More than ever New York needs water transport to attract her share."

The Hon. Henry W. Hill, Member of the Assembly from Erie County, eloquently described the origin of the Erie Canal and the growth of Buffalo as well as other cities in the interior of New York State. He pointed to the decline of commerce of New York City and State plainly shown during the last ten years, and referred to the bill providing for an appropriation of $200,000 for a survey of the proposed routes of the new Erie Canal, which he had introduced in the Assembly.

The Hon. John D. Kernan of Utica, and Mr. Frank S. Baird of Buffalo, followed, urging the importance of the improvement of canal transportation to the industries and future commercial supremacy of New York State.

The discussion of the canal question at this dinner stimulated widespread interest in the proposed improvement and contributed materially to the passage of the Canal Survey Bill.

On April 12, 1900, the Committee on Canals of the New York Produce Exchange requested the president to address letters of thanks to the Hon. Henry W. Hill, Buffalo; the Hon. Henry Marshall, Brooklyn; and the Hon. Perez M. Stewart, New York, for their valuable aid in the passage of the Canal Survey Bill, and at a conference of the representatives of commercial organizations of Greater New York, consisting of

The New York Produce Exchange,
The New York Board of Trade and Transportation,
The Merchants' Association of New York,
The Maritime Association of the Port of New York,
The Cotton Exchange,
The Canal Boat Owners' and Commercial Association of the State of New York,
The Canal Forwarders' Association,
The Mercantile Exchange,
The Manufacturers' Association of New York, and
The Italian Chamber of Commerce,

resolutions were adopted, organizing a permanent association, to be known as "The Canal Association of Greater New York," of which all delegates present at the conference from commercial bodies of the city were constituted members. An invitation was also addressed to all other commercial bodies of the city to join this association, and to appoint one or more delegates to represent them at future meetings. An Executive Committee was also appointed with instructions to appoint sub-committees, and with full power to organize and prosecute the work of impressing upon the people of the State of New York the commercial necessity of an improved canal.

At a subsequent meeting of the Executive Committee of the Canal Association of Greater New York a Finance Committee was appointed, of which Mr. Emil L. Boas was appointed chairman, consisting of the following members:

John P. Truesdell, New York Produce Exchange;
Henry Hentz, of Henry Hentz & Co.;
Franklin Quinby, of Rice, Quinby & Co.;
C. L. Adams, New York Lumber Trade Association;
John C. Eames, of H. B. Claflin & Co.;
S. D. Coykendall, Maritime Association;
W. L. Strong, ex-Mayor;
Oswald Sanderson, of Sanderson & Son;
Stuart G. Nelson, Vice-President Seaboard National Bank;
W. A. Nash, President Corn Exchange Bank;
Forrest H. Parker, President Produce Exchange Bank;
Edwin Langdon, President Central National Bank;
Geo. L. Putnam, of Sweetser, Pembroke & Co.;
Anderson Fowler, New York Produce Exchange ;
A. B. Hepburn, Vice-President Chase National Bank; and
Gardiner K. Clark, Jr., New York Produce Exchange.

The Executive Committee appointed a sub-executive committee for the conduct of the business of the Association, consisting of Henry B. Hebert, chairman; Gustav H. Schwab, Emil L. Boas, Wm. R. Corwine, Frank S. Gardner, S. C. Mead, Franklin Quinby, and John J. D. Trenor; and also appointed committees on State Agitation and on Meetings and Speakers.

It appeared very desirable to secure the support of the two political parties for canal improvement; and with this end in view it was determined at a meeting of the Committee on Canals of the New York Produce Exchange, held on August 30, 1900, with a delegation of the Buffalo Merchants' Exchange and Mr. John D. Kernan of the New York State Commerce Commission, to call upon the leaders of both parties and to urge upon them the importance of securing a plank in the platforms of both parties favoring

the enlargement and improvement of the canals of the State.

After the election of Governor Odell in the fall of 1900, the Sub-Executive Committee of the Canal Association of Greater New York called upon the Governor-elect at the Fifth Avenue Hotel for the purpose of laying before him their views on the subject of the improvement and enlargement of the Erie Canal, and at this meeting there followed an exchange of views between the Governor-elect and the committee on the general subject.

The Canal Association of Greater New York continued the agitation in favor of canal enlargement and improvement through the distribution of literature and press articles, it being considered of the greatest importance to keep the subject of canal improvement before the public.

A recommendation having been made by Governor Odell of some improvement in the Erie Canal which did not meet with the approval of the friends of canal enlargement, as it appeared inadequate, a meeting of the Canal Association of Greater New York was held on April 8, 1901, at which the following resolutions were adopted:

WHEREAS, The commercial organizations within the limits of Greater New York represented in the Canal Association of Greater New York, as the result of the study of the transportation facilities of this State, so far as they bear upon Atlantic ports, have unanimously reached the conclusion that something must be done as speedily as possible to enable this port to compete successfully with its rival ports in the exporting of grain and other raw materials as well as manufactured products; and

WHEREAS, As the result of this study, and the practical experience of shippers doing business here, they are convinced that the best solution of the transportation problem confronting this port is the development of the canal system of the State up to the requirements of modern commerce; and

WHEREAS, It has been and is the conclusion of this organization that the one thousand-ton barge canal is the minimum improvement that will answer the needs of the State and Port of New York; and

WHEREAS, This same conclusion was reached by what is known as the Greene Commission, the members of which without dissenting voice, used the following language in its report:

"In our judgment, arrived at after long consideration, and with some reluctance, the State should undertake the larger [meaning the 1,000-ton] project on the ground that the smaller one is at best a temporary makeshift, and that the larger project will permanently secure the commercial supremacy of New York, and that this can be assured by no other means"; and again [page 28]:

"We confine ourselves solely to advising you what in our judgment is the proper policy for the State to pursue in regard to its canals, leaving to those on whom the responsibility rests to decide whether these views should be carried into effect.

"We feel sure that on mature reflection the Legislature and the people of the State will ultimately adopt these views. We have hesitated to recommend the expenditure of a sum of money which, although small in proportion to the resources of the State, is still a very great sum, but after much deliberation we are unwilling to recommend any temporary or partial settlement of the canal question. We do not believe that the adoption of the smaller plan will result in permanent benefit to the State of New York, and as the money expended on the smaller project would be almost entirely wasted in case a larger project should be determind upon later on, we do not feel justified in recommending the expenditure of so large a sum as $21,000,000 for a temporary purpose." And

WHEREAS, The present Governor of the State has recommended an improvement which, in our judgment, does not meet the present necessities and will not answer future requirements; and

WHEREAS, A bill has been introduced in the Legislature, and is now pending therein, shaped upon the recommendations made by the Governor with some further improvements, but which does not include the improvements we believe are required; now, therefore, be it

Resolved, That we, the Canal Association of Greater New York, representing the following organizations within the City of New York:

New York Produce Exchange,
Maritime Association of the Port of New York,
New York Board of Trade and Transportation,
Merchants' Association of New York,
Manufacturers' Association of New York,
Cotton Exchange,
Mercantile Exchange,
Canal Boat Owners' and Commercial Association of the State of New York,
National Wholesale Lumber Dealers' Association,
New York Lumber Trade Association,
North Side Board of Trade,
Real Estate Exchange,

Staten Island Chamber of Commerce,
Italian Chamber of Commerce,
Wholesale Grocers' Association,
Association of Dealers in Building Materials; and
Paint, Oil and Varnish Club,

do hereby assert most positively our belief, based upon most careful study, that the so-called 1,000-ton barge canal is the minimum of improvement that should be undertaken, and that the expenditure of the money of the State on any less improvement would, therefore, be an unwise expenditure of the public funds; and, be it further

Resolved, That thus believing, we should be stultifying ourselves in accepting or recommending acceptance of any improvement that failed to meet the requirements; and, further, we make the above assertion of our position not from any capricious or unreasonable criticism of the recommendations recently made by the Governor, but in the full consciousness that the gravity of the situation requires a larger rather than a smaller development, and that it is our duty not only to ourselves, but to those whom we represent, that this position be made known to the Governor, members of the Legislature, and the commercial bodies throughout the State, and to the public at large;

Resolved, That the chairman of this meeting be directed to telegraph the Senators and Assemblymen from Greater New York that the pending Canal Improvement Bill is not satisfactory and we urge them to vote against its passage.

A committee was appointed by the Sub-Executive Committee to urge upon the members of the Legislature from the City of New York that they oppose the pending canal bill referred to in these resolutions.

The work of agitation in favor of the improvement of the canal system of the State on the one thousand ton barge plan was continued, and the Buffalo Merchants' Exchange was requested to send a committee to New York to confer with a view to securing harmony of action in support of the plan. This joint meeting was held on September 3, 1901, the Executive Committee of the Canal Association of Greater New York, and Messrs. Alfred W. Haines, W. A. Rogers, T. S. Fassett, John Cunneen and G. H. Raymond, representing the Buffalo Merchants' Exchange, being present.

At this meeting the subject of canal enlargement was fully discussed and the following resolutions were adopted:

WHEREAS, It appears from the action taken by the Buffalo Merchants' Exchange, and the statements of the Buffalo delegation, here present, that the said Exchange and the Canal Association of Greater New York are in entire harmony as to the method of improving the canals of this State;

Resolved, That this Association renew its support of the one thousand ton barge plan, and direct the sub-executive committee to coöperate with a like committee of the Buffalo Merchants' Exchange on such plans of campaign as they may agree upon, to secure the adoption of the necessary legislation and approval by the people of the State of New York."

The necessity for close coöperation with the Buffalo interests was so convincing that on October 15, 1901, a committee of the Canal Association of Greater New York, at the request of the Buffalo Merchants' Exchange, visited Buffalo for a conference with the Canal Enlargement Committee of that body. At this meeting Mr. Hebert and Mr. Corwine, members of the New York Committee, addressed the gentlemen present, explaining what action had been taken in New York towards the education of the people on the subject of the one thousand ton barge canal, and an advisory committee, consisting of three from Buffalo and three from New York, with power to appoint two or more from outside cities, was appointed to confer regarding the best course to be pursued in furtherance of the movement to build a one thousand ton barge canal. Mr. Henry B. Hebert, Mr. Wm. R. Corwine, and Mr. Frank S. Gardner were appointed to represent the Canal Association of Greater New York on the advisory committee.

The Maritime Association of the Port of New York at this time discontinued its membership in the Canal Association of Greater New York. As it was considered by the New York canal interests to be of the greatest importance to keep in close touch with the higher State officials, and to afford an opportunity for the exchange of views, Mr. Gardiner K. Clark, Jr., a prominent and public-spirited member of the Canal Association, on December 6, 1901,

invited Governor Odell, the members of the Sub-Executive Committee of the Canal Association of Greater New York, and a number of notable men of the city and State, to dinner at his house, on which occasion the canal question was fully discussed in all its phases. Mr. Andrew Carnegie, one of the guests at the dinner, made a most interesting statement to the effect "that the Carnegie Steel Company had purchased 5,000 acres of land surrounding its port of Conneaut on Lake Erie, and had the plans ready to begin work at an estimated cost of $12,000,000, in which he believed products of steel would have been manufactured at a cost less than elsewhere. One of the reasons which determined the site was that New York State was spending money in enlarging the Erie Canal, and the implicit confidence that he and his associates had that never would New York State fail to enlarge that water-way as needed." Mr. Carnegie continued as follows:

"On the shores of Lake Erie we had the ironstone of Lake Superior by water, coke from Pittsburg in empty cars over our own railroad, costing us nothing for transportation, and above all, we had the facilities for reaching Buffalo and the cities of central and eastern New York, Albany, Troy, Syracuse and New York City itself, by water. With an enlarged canal, barges could go to any part of New England without any transshipment of cargo. On the other hand, we had those empty barges in which we could bring from New York City to our works on the lake the ores which must be imported from South Africa and the Caucasus. The saving over rail transportation to Philadelphia and Baltimore would be so great that the western part of New York on the lakes would inevitably become one of the principal seats of manufacture. Nothing can prevent this if a suitable waterway between Buffalo and the ocean be kept open. We intended to manufacture pig iron at Conneaut to supply Rochester, Utica, Syracuse, Troy, and, of course, New York and the eastern parts, so that the foundries of these cities would have cheaper pig iron than ever before.

"I am certain that the Empire State can maintain her position as the Empire State only by developing her manufacturing facilities through the Erie Canal. . . . Before that admirable report of General Greene's committee was published, I ventured to write Governor Roosevelt my views about the canal. It gave me much pleasure some time later to learn that the conclusions arrived at by

that able committee were those which I ventured to express to the Governor. These were, briefly, that it would never pay to run big ships from Buffalo to New York through any canal, not even a ship-canal. It is much cheaper to transfer from a 10,000-ton lake vessel to a 1,000-ton barge, and send it through the canal at slow speed to be unloaded alongside into ocean-going ships, than to send an ocean or lake vessel through the canal. The time required is too long to justify the enormous cost of the ship's crew, interest on capital involved, etc."

The dinner was attended by several well-known engineers who freely stated their views on the subject of canal improvement based upon their experience in work of this character. There was a frank interchange of opinion on the subject of the falling off of the commerce of New York and on the means for its rehabilitation through the reconstruction of the water-ways of the State, thereby placing them in a position to compete with the railways and to act as regulators of freight rates. In the course of the discussion Mr. Lewis Nixon, one of the members of the Canal Association, made the suggestion that, leaving the canal prism at a depth of nine feet, the proposed locks be enlarged to accommodate barges of one thousand tons capacity, thus leaving the enlargement of the canal prism, a comparatively less expensive matter, to the future.

This proposition met with the favor of the Governor and was taken up by him and incorporated in a message to the Legislature in the session of 1902, providing for the extension and enlargement of the canal locks to the capacity of one thousand ton barges and the deepening of the Erie Canal prism to nine feet. The Governor in the same message proposed certain improvements in the canal alignment between Rexford Flats and the Hudson River.

A bill was introduced by Senator Davis in the Senate carrying out these recommendations of the Governor. The Canal Association of Greater New York reluctantly approved of the bill as representing half a loaf, and adopted a plan for agitation in favor of it through the printing and mailing of documents to a large number of voters in the State, but without success, as the bill, known as the "Davis

Canal Bill," failed to pass the Legislature in spite of the efforts made by the Canal Association to impress the members with the necessity for an enlarged canal.

Its defeat was not a cause of much regret, however, as the Canal Association greatly preferred a thorough reconstruction on modern lines of the water-ways of the State. This view found expression at a meeting held by the Canal Association of Greater New York on April 15, 1902, when the following resolutions were unanimously adopted:

Resolved, That the Sub-Executive Committee cause to be prepared a proper bill, having in view the construction of a canal such as is favored by this Association, such bill to be submitted to this Association at a subsequent meeting, and if approved, to be introduced in the Legislature as the bill of the Canal Association of Greater New York; and, be it further

Resolved, That the Sub-Committee of this Association be instructed to conduct an active and persistent campaign throughout the State, on such lines and in such manner as may in the judgment of the Sub-Executive Committee seem wise and desirable."

At a joint meeting of the Sub-Executive Committee of the Canal Association and of the Canal Committee of the Produce Exchange, held on April 30, 1902, a committee was appointed consisting of Messrs. Gustav H. Schwab, Frank Brainard, S. C. Mead, Wm. R. Corwine and Frank S. Gardner, which was instructed to consult with the Buffalo and Oswego interests and with the State Engineer relative to the proper route for a canal; and to submit to the Sub-Executive Committee a plan of campaign for a one thousand ton barge canal. The committee proceeded to Buffalo where they met the State Engineer, Mr. Edward A. Bond, and a number of representatives of the Buffalo Merchants' Exchange for the purpose of consultation with regard to the future course to be taken by the canal interests.

The discussion of the subject at this meeting showed that the representatives from New York and Buffalo were agreed as to the improvement that was essential to give the best results to the manufacturing and commercial interests of the State; that a feasible and adequate plan of canal

improvement should be determined upon by New York and Buffalo, and that efforts should be made to secure the coöperation of all the other canal interests of the State; this being accomplished it was the unanimous opinion that a vigorous campaign should be prosecuted to secure favorable action thereupon at the next session of the Legislature.

After lengthy discussion and consideration the report of the committee appointed on April 30, 1902, on the route of the canal to be adopted, was presented to the meeting of the Sub-Executive Committee of the Canal Association on September 2d. This report advised against the adoption of the so-called "Ontario route," i. e., the route by way of Lake Ontario to Oswego, and in favor of the so-called "Oneida-Seneca route," by way of the present canal to Oswego, thence to Oneida Lake, and thence by way of the Mohawk valley. The committee reported that the latter route constitutes the most practicable, the most efficient, and the most economical route for a one thousand ton barge canal between the Great Lakes and the Hudson River, and that this route combines in it the elements that in the opinion of the committee will reëstablish the preëminence of the commercial position of the State and City of New York, and will enable the State of New York to build up industries and manufactures rivalling and even exceeding in importance those of other States.

The report of the committee was adopted by the Canal Association and a copy sent to the Canal Enlargement Committee in Buffalo, which committee agreed with the conclusions contained in the report.

In order to enlist the interests of the press in canal improvement, a dinner was given by the Canal Association of Greater New York, and the Canal Committee of the New York Produce Exchange, on September 11, 1902, to the chief editors of the press of Greater New York. At this dinner the subject of canal enlargement and its effect upon the commerce of the State and City of New York was fully discussed in all its phases.

In view of the approaching fall election, a committee was appointed by the Sub-Executive Committee of the Canal

Association of Greater New York to wait upon the conventions of the Republican and Democratic parties of that fall for the purpose of urging the adoption by both parties of planks in their platforms, advocating the improvement and enlargement of the State canals in such manner as to permit the passage through the Erie and Oswego Canals of barges of one thousand tons capacity, and the deepening of the Champlain Canal to seven feet, as recommended by the canal committee appointed by Governor Roosevelt. As the result of the efforts of this committee the Republican platform of that year called for the enlargement and improvement of the canals of the State to such an extent as will fully and adequately meet all requirements of commerce; and the Democratic platform pledged the Democratic party to save and build up and improve the canals, and contained the following unequivocal pledge:

"We covenant with the people to prepare and submit to them immediately for their sanction a plan of canal improvement providing for a barge capacity of 1,000 tons for the Erie and Oswego Canals, and adequate and necessary improvement for the other canals of the State."

The success of the efforts of the committee in inducing the political parties to commit themselves to canal improvement was so marked that the Canal Association of Greater New York on October 6th, adopted the following resolution:

Resolved, That the Canal Association of Greater New York, in meeting assembled, recognizing the marked advance toward its ideal of canal improvement as exemplified by the planks adopted by the recent Republican and Democratic conventions held at Saratoga, tenders its thanks to the sub-committee attending those conventions, and hereby pledges its constant support to the efforts necessary to the successful realization thereof."

The New York canal interests were impressed with the necessity for early action in the preparation and introduction of a canal measure in the Legislature, and the committee, therefore, availed themselves of the valuable services of Mr. Abel E. Blackmar, counsel of the New York Produce Exchange, in the drafting of a referendum bill for introduction

at the next session of the Legislature, providing for the construction of a one thousand ton barge canal. The committee also secured the efficient aid of Major Thomas W. Symons, Corps of Engineers, U. S. Army, in the drafting of the technical and engineering provisions of the proposed bill.

In order to awaken public opinion to the evident necessity for some remedial action to arrest the alarming symptoms of decline in the commerce of New York, a public meeting of the members of the New York Produce Exchange, Mr. Edward G. Burgess, President of the Exchange presiding, was held October 31, 1902, in the managers' room, which was addressed by Mayor Low and others, and at which the following resolutions were adopted:

WHEREAS, The decline of the commerce of the State and Port of New York has become so alarming as to threaten the commercial supremacy of the State; and

WHEREAS, This loss of trade is largely due to the elimination of the canal as a regulator of freight rates from the Great Lakes to the Hudson; and

WHEREAS, The loss of the canal as a factor in transportation has placed the traffic of the State under the control of the railroads, which have, under a system of differentials in freight rates, diverted lake and ocean commerce naturally tributary to this State to ports outside of this State; and

WHEREAS, This Exchange, through its committee, in coöperation with the commercial organizations of the State and city, has advocated and supported the proposition for the construction of a one-thousand-ton barge canal, this being conceded to be the most efficacious means of restoring the traffic conditions which gave to this Commonwealth the preëminence in commerce and the name of Empire State when the Erie Canal dominated the freight rates through the State; therefore, be it

Resolved, That the members of this Exchange, in meeting assembled, hereby heartily endorse the action of its committee in their efforts for the immediate improvement of the State waterways on the basis of a 1,000-ton barge capacity, and earnestly appeal to the people for their support of this canal project, which is so vital to every material interest of this Commonwealth.

Messrs. Blackmar and Symons, who had been charged with the important duty of drafting the bill for introduction in the next session of the Legislature, providing for a vote of the people of the State of New York on the question of the construction of a one thousand ton barge canal, and who had received the valuable aid and advice of the Hon. George Clinton of Buffalo, presented their proposed bill at a joint meeting of the Committee on Canals of the New York Produce Exchange and of the Sub-Executive Committee of the Canal Association of Greater New York on December 1st, with a lengthy report on the proposed measure, and after an informal discussion a resolution was finally adopted that the canal bill and the report thereon should be printed and considered at another meeting; and in the meantime the Committee on Agitation was requested to proceed at once to Albany and to lay before the Governor the advantages of the inland route as compared with the Oswego-Ontario lake route. Major Symons was also requested to lay copies of the bill and report before the Canal Enlargement Committee of Buffalo for their adoption.

The Committee on Canals of the New York Produce Exchange, and the Sub-Executive Committee of the Canal Association of Greater New York on December 18, 1902, adopted the following report of a Sub-Committee on Canal Tolls, appointed at a previous meeting:

"Your sub-committee find on careful inquiry among the business interests of this city, familiar with canals, that there appears to be a general feeling in these business circles adverse to the re-imposition of any charge or toll for the use of the canals of this State. As far as the observation of your sub-committee goes, the general feeling seems to be that the re-adoption of a toll or similar charge on the canals would mean a backward step, and a regrettable reversion of the enlightened policy adopted by the people of the State in freeing the canals from any toll whatever.

Your sub-committee desires to quote the wise words of a distinguished friend of the canals, ex-Governor Horatio Seymour, addressed to the Hon. J. W. Higgins, Chairman of the Assembly Committee on Canals, on February 27, 1882, at a time when the amendment to the Constitution removing the canal tolls was pending. Gov. Seymour wrote as follows:

"As a citizen and as an official, I have studied all questions bearing upon internal commerce by railroad and by water routes. My investigations, which have run through many years, have convinced me that the interests of the State demand a liberal policy with regard to both of these promoters of its wealth and prosperity. I have, therefore, not only urged the reduction of toll, but also that the right to carry freight, which some of them did not originally have, should be given to the railroads, and that they should be relieved from the payment of tolls to the canals, to which many of them were subject. The question now is, Shall the State be as wise and liberal towards its own canals and boatmen as it has been towards the railroad corporations? Many seem to think that the question involved in the pending amendment is only to determine if the canals shall be supported by those who use them, or by taxation upon all parts of the State. This is very far from being a true view. Tolls are taxes of the most hurtful kind to the whole community. . . . The object of the amendment is not only to relieve our boatmen and to save our canals, but to lighten taxation in every part of the State. That it will do this can be shown not only by reason, but more clearly by experience. When our canals were first projected, they were opposed because it was feared that, while they might benefit some sections, they would injure others away from their lines. This proved to be the reverse of the truth. The wise way to lighten taxation is to add to the wealth and prosperity of the community. Since the completion of the canals the ratio of taxation upon the extreme northern and southern sections of New York has been reduced, while the markets for their products have been improved and enlarged."

The business interests of this city are apprehensive that the imposition of a toll will impair the efficiency of the canals as competitors of the railroads. In the letter that we have referred to Gov. Seymour writes as follows upon the subject of the relations between the railroads and the canals:

"What the policy of a railroad corporation may be in the future we cannot foresee; but this we know, while our canals are maintained and their traffic is untaxed, the State will always be protected from hurtful combinations . . . So long as they are kept in good condition, we shall be saved from the evils of combinations or unjust discriminations against our State. If they do not carry a pound of freight, it would be wise to keep them in order, so that they would be ready for use to defeat unjust and hurtful charges against the business of New York."

Governor Seymour concludes his letter as follows:

"The chief element in the prosperity of every State or Nation is the economy of transportation of persons and property. It is the most marked fact in the difference between civilization and barbarism."

Your committee fully recognize the force of the argument that the magnitude of the work to be undertaken by the State and the enormous outlay that it calls for, justifies the imposition of a mod-

erate charge upon the interests that will directly benefit from the contemplated improvement of the canals. Against this argument your committee point to the indisputable advantages that will accrue to the State at large, and the incalculable accretions that its resources will receive. The benefits of the proposed improvement will, therefore, not merely apply to a few business interests, but will, in the opinion of your committee, be co-extensive with the limits of the State itself.

Your committee are well aware of the fact that, as far as they are informed, all foreign canals are operated under the toll system and that, therefore, is no reason why the proposed improved waterway, ranking second only to the proposed Panama Canal, should form an exception to the rule. But your committee venture to urge that the Erie Canal plainly occupies a position radically different from that of any other canal in that it forms the sole possible competitor of numerous powerful and allied railroad lines leagued together for the purpose of so directing traffic as to deprive the State and City of New York of that share of commerce to which they are entitled. As the chief reason for the existence and improvement of the canal at present lies in its efficiency as a regulator of freight rates and a competitor with the railroad, your committee believe that the rules applicable to other canals cannot obtain here.

After a full consideration of the proposition to re-impose tolls upon the canals submitted to your sub-committee, your committee believe that the best interests of the State as a whole would be subserved by the continuance of the wise policy of free canals adopted in 1882 until experience has shown that the traffic of the improved canal can without peradventure support a moderate charge for the maintenance of the State's artificial waterways. Your committee, therefore, desire to recommend the adoption of the resolution submitted at the meeting of the Executive Committee of the Canal Association on the 15th instant, reading as follows:

Resolved, That the Canal Association of Greater New York is of the opinion that the question of toll upon the traffic of the proposed improved canal should be deferred until experience has demonstrated what toll may be safely imposed without impairing the efficiency of the canals."

A copy of this report was sent to the Governor for his information.

At the end of December, 1902, a committee, consisting of Messrs. Henry B. Hebert, Gustav H. Schwab and Gardiner

K. Clark, Jr., proceeded to Albany for a conference with Governor Odell on the subject of canal improvement, at which the Governor read to the committee extracts from his forthcoming message upon this subject, and suggested that the Canal Association follow up the proposed canal legislation.

On January 13, 1903, the Executive Committee of the Canal Association formally accepted and adopted the bill prepared by Mr. Abel E. Blackmar and Major Thomas W. Symons, Corps of Engineers U. S. Army, with the aid of Hon. George Clinton, for the proposed one thousand ton barge canal. It instructed the Sub-Executive Committee to introduce the bill in the Legislature and to use every honorable means to secure its passage. The bill was thereupon introduced in the Assembly by the Hon. Chas. F. Bostwick of New York, and in the Senate by the Hon. Geo. A. Davis of Buffalo. It was entitled "An Act making provision for issuing bonds to the amount of not to exceed one hundred and one million dollars for the improvement of the Erie Canal, the Oswego Canal, and the Champlain Canal, and providing for a submission of the same to the people to be voted upon at the general election to be held in the year nineteen hundred and three."

Section 1 provided that bonds of the State in an amount not to exceed one hundred and one million dollars shall be issued and sold for the improvement of the Erie Canal, the Oswego Canal and the Champlain Canal.

Section 3 directed the Superintendent of Public Works and the State Engineer to proceed to improve the Erie Canal, the Oswego Canal, and the Champlain Canal on the route beginning at Troy on the Hudson River, thence to Waterford, thence westward to the Mohawk River above Cohoes Falls, thence in the Mohawk River canalized to a point about six miles east of Rome, thence to and down the valley of Wood Creek to Oneida Lake, thence through Oneida Lake to Oneida River, thence down the Oneida River to Three River Point, thence up the Seneca River to the mouth of Crusoe Creek, thence north to the New York Central Railroad to a junction with the present Erie Canal

about one and eight-tenths miles east of Clyde, thence following substantially the present route of the canal with necessary changes and running across the country south of Rochester to a junction with the Niagara River at Tonawanda, thence by Niagara River and Black Rock Harbor to Buffalo and Lake Erie. The Oswego Canal was to be improved from a junction of the Oswego, Seneca, and Oneida rivers northward to a junction with Lake Ontario on the route of the Oswego River canalized and the present Oswego Canal.

The route of the Champlain Canal as improved was to begin at the Hudson River at Waterford, thence up the Hudson River canalized to near Fort Edward, thence following the route of the Champlain Canal to Lake Champlain.

The Erie, Oswego, and Champlain canals were to be improved so that the canal prism in regular canal sections shall have a minimum bottom width of 75 feet, and a minimum depth of 12 feet. On the rivers and lakes the canal was to have a minimum bottom width of 200 feet and a minimum depth of 12 feet. Full and explicit directions were contained in this section with regard to the construction of the locks, bridges, dams, and a harbor in Onondaga Lake for Syracuse, and connection from the new line of the Erie Canal south of Rochester into the city of Rochester with a harbor at the northerly end.

Section 8 authorized the Governor to employ five expert civil engineers to act as an Advisory and Consulting Board of Engineers, whose duty it was to be to assist the State Engineer and Superintendent of Public Works to exercise a general supervision over the work in progress and to report thereon from time to time to the Governor, the State Engineer, and the Superintendent of Public Works, as they might require, or as the Board might deem proper and advisable.

Section 14 provided that any surplus from the sale of the bonds, the sale of the abandoned lands over and above the cost of the entire work of the improvement shall be applied to the sinking fund for the payment of the bonds.

The Sub-Executive Committee remained in constant touch with the friends of the canal improvement in the Legislature.

At a conference held in Albany on January 26, 1903, with canal interests from other parts of the State, a Legislative Committee was appointed consisting of Mr. Gustav H. Schwab, to represent New York interests, Mr. Alfred W. Haines to represent Buffalo interests, Mr. Frederick O. Clarke to represent Oswego interests, and Mr. Frank S. Witherbee to represent the Champlain interests. Hon. George Clinton of Buffalo, Mr. Gustav H. Schwab, Mr. Wm. R. Corwine, Major Thomas W. Symons, Prof. Wm. H. Burr, Mr. Geo. S. Morison and Mr. A. E. Blackmar appeared at the joint hearings held by the Canal Committee of the Senate and Assembly and presented arguments in favor of the bill.

The plans and estimates upon which was based the cost of canal improvement proposed in the canal bill presented to the Legislature were the result of a study of years by a body of engineers whose operations were characterized (as stated by Prof. William H. Burr, Professor of Engineering in Columbia University, and a member of the Isthmian Canal Commission) by a degree of thoroughness and technical preparation which has never been excelled in the consideration of any similar engineering question. The Board of Consulting Engineers and its staff in preparing the estimates and plans, besides making complete surveys and careful investigations of all questions connected with the matter, had before them a great mass of surveys and examinations made by the United States Deep Waterways Commission along a large portion of the line of the proposed improved waterway. The plans and estimates after their development by the Board of Consulting Engineers and its staff were also laid before the Advisory Board of Engineers, consisting of Professor Burr; Mr. George S. Morison,[1] Past President of the American Society of Civil Engineers and a member of the Isthmian Canal Commission; Mr. Elnathan Sweet, the former State Engineer; Major Kingman, Corps of

1. George Shattuck Morison, the distinguished engineer, died in 1903.

Engineers U. S. Army; Major Thomas W. Symons, Corps of Engineers U. S. Army; and Mr. Alfred Noble, President of the American Society of Civil Engineers, and in charge of the construction of the Pennsylvania Railroad terminal in New York City. The emphatic opinion expressed by Mr. Morison, Prof. Burr, Major Symons and Mr. Noble before the legislative committees of both Houses was that the estimates, upon which the one thousand ton barge canal plan was based, would be sufficient and would not be exceeded. In this connection Prof. Burr made the following statement before the Joint Canal Committee of both Houses:

"This work cannot be done in a season; it would be spread over a number of years, and it is as certain as anything human can be that when so great a work as this shall be undertaken, special plans, special appliances, efficient organizations, and all those things which go to make up a businesslike treatment of the work will reduce the cost materially below these figures, which apply to ordinary quantities of such work performed under ordinary conditions."

Mr. Morison at the hearing stated as follows:

"I believe that if it is properly handled, with a competent set of engineers and a competent staff of inspectors, with a perfectly fair letting and everything handled in the best way in which the best management handles it, this canal can be built inside the estimate."

The provisions adopted in the canal bill to guard against the possibility of fraud and waste in connection with the construction of the canal were most stringent. Under the provisions adopted in the bill the work was to be divided into suitable sections, each of which was to be under the charge of a resident engineer, with assistant engineers and inspectors, all to be appointed by the State Engineer. It was provided that contractors should be under bonds for the faithful performance of their contracts, and the same guarantees were required of these contractors that are demanded by the United States Government in the construction of public works. Unbalanced bids, which have been the fruitful source of corruption in the past, were prevented by a provision in the act prohibiting the award of any contracts to a bidder whose bid as a whole or in any items varied more

than a fixed percentage from the estimate of the State Engineer, unless the variation could be explained to the satisfaction of the State Engineer and the Canal Board, consisting of the Lieutenant Governor, Secretary of State, Comptroller, State Treasurer, Attorney General, Superintendent of Public Works, and the State Engineer and Surveyor. Work before being contracted for had to be advertised once a week for four weeks in newspapers in the cities of New York, Albany, Rochester, Buffalo and Syracuse, also in each county in which the particular piece of work is located. The bill gave the Canal Board full power to assume the direction and control of the work when it appeared that the quantity of any item of work was unduly over-running the Engineer's estimate, and provided further for the appointment of a Board of Advisory Engineers to be named by the Governor, to advise and aid the State Engineer and Superintendent of Public Works, and to exercise general supervision over the work.

After a considerable discussion the combined canal interests of the State agreed to amend the canal bill by providing for the improvement of the Champlain Canal to the same depth as the Erie Canal, making all the canals of uniform depth.

The Chamber of Commerce of the State of New York at a meeting held on February 19, 1903, unanimously adopted the following resolution, and ordered copies sent to the Governor of the State and to the members of both Houses of the Legislature:

Resolved, That the Chamber of Commerce of the State of New York hereby approves the proposition now pending in the Legislature of this State for the improvement of the Erie Canal, the Oswego Canal, and the Champlain Canal by the construction of what is popularly termed the 1,000-ton barge canal, and we respectfully urge the Legislature to enact the legislation necessary to enable the same to be submitted to and voted upon by the people at the general election to be held in the year 1903."

Mr. A. Barton Hepburn, Chairman of the Committee on Internal Trade and Improvements of the Chamber of Com-

merce, in presenting this resolution made the following remarks:

"The canals were completed to the depth of seven feet in 1862, and since then nothing has been done to increase the navigable capacity of the canals. What have the railroads done in the past forty years? They have increased the maximum railroad train capacity from 300 tons or 10,000 bushels of wheat to 2,700 tons or 90,000 bushels of wheat. The capacity of a canal boat plying the Erie Canal 30 years ago was 220 tons, equal to 74 per cent. of a train load; to-day it is 240 tons, which equal 0.088 per cent. of the maximum train load of today. Since 1862 the New York Central & Hudson River Railroad has increased the number of miles of road which it controls and operates 9,658 miles, capitalized at nearly three-quarters of a billion dollars, gridironing the East and Central West in its laudable ambition to reach and control business. The Baltimore & Ohio has spent for equipment, betterment, and improvements in the past two years $15,000,000, and has contracted for or determined upon the expenditure of as much more. The Lehigh & Wilkesbarre has expended $8,000,000 in the past two years for the same purpose; the Delaware, Lackawanna & Western $10,000,000, the Erie $7,500,000 and now has authorized a bond issue of $50,000,000 for improvements and equipments. The New York Central has expended $7,500,000, and is about to expend upon its terminals $40,000,000. The greatest of all our railroads, the Pennsylvania, has expended $45,000,000 recently to improve its efficiency, has a $50,000,000 tunnel on hand and bridge construction and other improvements, the cost of which I won't venture to estimate. All this has been done by railroads terminating in New York, and hence competitors of our canals. Curves must be straightened and grades reduced, the capacity and facility of equipment increased, and no one doubts and no one questions that it is wise economy and good business judgment. If it is wise economy and good judgment as applied to railroads, is it not incumbent upon the great State of New York to apply these principles in the management of our system of canals? . . . In their present unsatisfactory condition the canal transportation for the year 1901 amounted to 3,420,613 tons, 1,113,617 tons of which had for its terminus the city of New York, or about 25 per cent. of the total. The canals should be maintained primarily as a regulator of the cost of transportation as fixed by the railroads, and for this purpose their annual worth to the commercial and business interests of the State would exceed their annual cost. Secondly, they are

needed to supplement as well as rival the railroad traffic of the country.

"When the anthracite miners' strike was declared off and coal was being mined in abundance, the community still suffered because of the inability of the railroads to transport and deliver the same. There has been a terminal congestion of freight in all the larger cities and business centers of the country. Even the Pennsylvania Railroad had to lay off its twenty-hour passenger train to Chicago in order that the trackage might be used in distributing the freight of the company and relieving the congestion.

"Under these circumstances the great State of New York ought to conserve the business interests of its citizens and defend its own primacy by applying the principles and rules of management of the conduct of its canals which business experience and business foresight have proven to be necessary in order to preserve and promote the efficiency of private transportation enterprises."

On March 11, 1903, the Committee on Agitation submitted a plan for the publication of a "Canal Primer" for educational purposes in connection with the agitation in favor of the passage of the proposed canal bill, which was approved. This canal primer was entitled "The Canal System of New York State; What it Was; What it is; What it has done for the Commonwealth and the Nation, and what Benefits the Empire State will derive from the Proposed Improvements," and contained in the form of questions and answers an exhaustive study of the origin, development, and influence of the canal system of the State.

Upon the passage by the Legislature of the canal bill providing for the submission of the question of the proposed canal enlargement to the people at the general election in the fall of the same year, a carefully considered plan for an educational campaign was adopted consisting of the following principal features:

1. The publication of canal literature through the newspapers.

2. The distribution of canal literature through letters, pamphlets, leaflets, posters; also agitation of the subject of canal improvement through speakers.

3. Public interviews with persons of importance advocating canal improvement.

4. Mass meetings.

A competent manager with a proper staff was appointed to carry out this plan of canal agitation; and on conference with the Buffalo interests the entire campaign of agitation and education was placed in the hands of a "Canal Improvement State Committee," consisting of delegates from New York, Buffalo, Oswego, and Champlain. Messrs. Henry B. Hebert, Gustav H. Schwab and Frank Brainard were appointed the New York representatives on the Canal Improvement State Committee, and at the first meeting of this committee Mr. Gustav H. Schwab was elected chairman, and Mr. Henry B. Hebert treasurer.

A canal textbook for the use of speakers and editors was prepared of which a large number of copies were ordered printed. This book presented in compact form for ready reference all the facts underlying the demand for the improvement and modernization of the waterway system of New York State. The contents of the canal text-book included the substance of the one thousand ton barge canal bill, the essential portions of the report of the State Engineer and Surveyor, presenting details of construction and precise estimates of cost, the opinions of experts on waterway construction in support of the plans and estimates of cost, the general consensus of opinion of the representative commercial organizations and leading men of the State, giving the reasons and the justification for the improvement of the Erie Canal as proposed under the one thousand ton barge canal plan following the "canalized Mohawk River, Oneida Lake, Seneca Route."

A conference of editors from the central part of the State was arranged at Syracuse in the summer of 1903, at which the editors were entertained at dinner and the canal improvement plan was discussed in all its bearings.

The detailed plans of the Canal Improvement State Committee after careful consideration proposed the concentration of the work of education and agitation along the line of the canal and at its termini, it being considered useless to attempt any organized work of enlightenment or education in the counties of the line of the canal and not tributary to it,

which were conceded to the enemy. Systematic work was begun among the labor unions and in counties along the Hudson River and tributary to the Oswego, Champlain and the Erie Canals. Conferences were also held with representatives of the Liquor Dealers' Association, to secure the support of that body.

The newspapers were provided with so-called "boiler plate" matter and large editions of the canal primer and text-book were ordered and distributed. A committee was appointed to confer with the various political organizations of Greater New York for the purpose of securing their endorsement of canal improvement. In the autumn of 1903 large public meetings were arranged at Three Rivers, Onondaga County, and Sylvanbeach, Oneida County, at which members of the committee, and representatives of the Canal Association and of the Canal Improvement State Committee spoke. The county fairs along the line of the canals were supplied with pamphlets and leaflets containing a comparison of the amounts received and contributed by the counties towards their support, and a dinner and reception for editors and business men was arranged at Utica at which the proposed canal improvement was fully discussed. Meetings were also arranged at various other parts in the interior of the State near the lines of the canals.

At the solicitation of the Canal Association of Greater New York the Board of Aldermen of the City of New York on October 6, 1903, passed resolutions in favor of the one thousand ton barge canal.

Systematic work was undertaken among the Italians throughout the State through the efficient aid of Mr. John J. D. Trenor, a member of the New York Produce Exchange, who by reason of his long residence in Italy had acquired a thorough knowledge of the Italian language.

The New York Produce Exchange Canal League was formed in the New York Produce Exchange on September 14, 1903, under the chairmanship of Mr. Albert Kinkel, a prominent member of the Exchange, which League arranged for a very successful meeting on the floor of the Exchange on October 20th, Mr. Albert Kinkel presiding, at which

Mayor Low, Ex-Mayors Chas. A. Schieren and David A. Boody, Messrs. Wm. F. King, Lewis Nixon, Assemblyman Bostwick, Henry B. Hebert and Professor Stevenson, of New York University, made addresses. The League also distributed a large quantity of campaign buttons.

A suitable press representative was engaged to supply the metropolitan press with canal matter and a large edition of small maps was printed, showing the old and the new canal with explanatory text on the reverse side. The general attitude of the press of New York City was, with very few exceptions, in favor of the improvement. Chief among the exceptions were the New York *Sun* and the New York *Herald*. The New York *Sun* was active in its opposition. Mr. Gustav H. Schwab, chairman of the Canal Improvement State Committee, cabled Mr. James Gordon Bennett in Europe, urging him to instruct the New York *Herald* to support the movement, but no reply was received.

The Order of Acorns, which was established in New York City for good government, was approached by the Canal Association of Greater New York and agreed to advocate canal improvement at its meetings in Greater New York. Committees were appointed to confer with the speakers' bureaus of the Democratic, Republican, Citizens' Union and Socialist Labor and Prohibition parties. The Citizens' Union agreed to advocate canal improvement through its campaign speakers.

The number of papers supplied with "boiler-plate" matter during the last months of the campaign was 750.

A dinner was given by the Canal Association of Greater New York on October 6, 1903, Mr. Henry B. Hebert presiding, to the editors of the metropolitan press, at which the canal enlargement was discussed.

General Francis V. Greene, one of the speakers at the dinner, referred to the question of the ability of the State to pay one hundred millions of dollars for canal improvement. He pointed to the assessment for the year 1903 for the State of New York, which was about six billions of dollars, and drew attention to the fact that the annual interest and sinking fund requirement would amount to but

one tenth of one per cent. on the total valuation of six billion dollars. As to the question whether the waterway would benefit the State, General Greene called attention to the fact that water transportation is cheaper than rail transportation and that, if a waterway as proposed is established, commerce will inevitably seek it, just as water runs down hill. He pointed to the fact that during the ten years from 1889 to 1900 the State of Pennsylvania outside of the city of Philadelphia increased in population by several hundred thousand more than the State of New York outside of the city of New York, and urged that, through cheap transportation, conditions would be created favorable to the development of industries throughout the State. A large part of the opposition to the canal, General Greene said, came from the fact that here in New York are the owners, to a large extent, of the railroads that run to Newport News; to other points on the South Atlantic coast; down the Mississippi River to the Gulf; to Galveston; and eastward to Boston. The owners of these roads were quite willing that differentials should be made injuring the commerce of New York. But, General Greene proceeded, it was not to the interest of New York to build up, what he might call, a landlord system of ownership here of roads whose interests are allied with the prosperity of other States. What was needed, he said, to keep prosperity of this State, so to speak, on an even keel, is to build up the State itself, not by mere ownership of stocks and bonds, but by manufactories, and by commerce, and by having through this State the cheapest and best route of transportation which commerce will then inevitably seek.

Hon. George Clinton, of Buffalo, another guest at the dinner, referred to the lack of enthusiasm shown by the press of New York City in the canal plan. He urged the great advantage accruing to the State of New York through cheapness in transportation, comparing the rate on the canal and on the lakes with the railroad rates of freight, and ended with a plea to rehabilitate the canal as a regulator of rates.

Col. Symons gave some very interesting details with regard to the estimates for the one thousand ton barge canal

and the way in which these estimates had been arrived at. He referred particularly to the Board of Advisory Engineers, who were consulted in the preparation of the estimates and the drafting of the bill, and assured the assembled company that the canal route was properly selected; that the estimates were ample, and more than ample; and that the bill provided such safeguards that the money would be honestly, efficiently and economically expended.

Hon. Lewis Nixon addressed himself particularly to the question of the type of canal and answered the objections that were made to the barge canal act on the plea that a ship canal would be more efficient. He drew attention to the fact that great ships of 10,000 tons and more would be an impossibility in the proposed canal and could not be economically operated in such a waterway, but that freight must be transferred in Buffalo from the lake steamer to the barge, and at the seaboard from the barge to the ocean steamer in order to complete a cheap and economical route of transportation from the interior to Europe. Mr. Nixon closed with an appeal to the business interests of New York to show the voter at the approaching election that every calling, profession and trade in the State of New York was directly and vitally interested in the great question of canal improvement. They should approach the leaders of the two political parties and tell them that the two great parties should fight hand in hand, as they were forced to do by the people of this nation when they demanded a mighty navy.

Mr. Blackmar gave some interesting statistics on the discrimination practiced by the railroads against New York City and the relative growth of the tonnage of the export trade from other ports as compared with New York. He did not attempt to cast any blame upon the railroad companies for the decline of commerce in the port of New York, as they were acting for their own interests, and he had no doubt but that the railroad companies, whose only interests are in the port of New York (if there are any such) would advocate the abrogation of the differentials, but Mr. Blackmar urged that with the people the question was not the financial interests of the stockholders of the roads, but the

continued commercial supremacy of New York. With the barge canal in operation the differential agreement (if it should be maintained) could not seriously affect our commerce. Commerce flowing along the line of least resistance then would pass through the canal. Mr. Blackmar quoted from the decision of the Interstate Commerce Commission in the case of the New York Produce Exchange against the railroad companies forming the Joint Traffic Association the following words:

"It must be borne in mind that the grain of New York does not reach that port from the interior exclusively by rail. The canal has brought in the past a very considerable portion of that traffic and it is to this water communication between the West and East that New York has largely owed its predominance in the foreign trade. Now these differentials have nothing to do with grain moving by canal. Their purpose is merely to divide fairly between the different competing lines the export business which moves by rail. If for any reason the canal were to be entirely shut up so that no grain could be transported by it, it would by no means follow that the grain which had formerly come to New York by canal ought now to come there by rail. Quite the contrary. This canal traffic ought now to be distributed in the same proportions over the various lines leading to the different ports. New York has no vested right in the having of so much grain shipped to that port. The canal has been a most important element in her commercial supremacy. If that element drops out, she must expect to lose that portion of her supremacy which was due to it. . . . The great supremacy of New York in the past has been measurably due to its canal. If it would hold that supremacy in the future, it must give attention to that same waterway. The testimony as to the excessive elevator charges upon canal grain is not material to this investigation, but it is extremely suggestive in connection with the facts as above referred to. If the canal were to be restored today to the same position in this carrying trade that it has occupied in the twenty years past, the commerce of the port of New York could not suffer."

Senator Henry W. Hill of Buffalo referred to the convincing words of the previous speakers and urged that the people of New York should not let slip the golden opportunity offered to them at the coming election to approve the referendum bill. He stated that every objection that mortal

could point to in the referendum bill had been raised against it, and that the fight that had been waged in the Legislature during the last ten years had been the fiercest fight that had ever been waged in any legislature in the history of the world. He referred to the waterway, not over twenty miles long, recently constructed by the city of Chicago, which spent $38,000,000, and asked if in view of this example this great State of New York should not be willing to spend $101,000,000 for a canal over 350 miles long. Senator Hill also drew attention to the expenditures made by the Canadian, the English, the German, and the French Governments in the improvement of their waterways, and appealed to the progressive spirit of the age to surmount all obstacles to the progress and prosperity of New York City.

As the result of this dinner canal articles appeared in fifteen of the daily papers, averaging one column in length.

A most efficient "cart-tail campaign" was organized by the Canal Improvement State Committee under the management of Mr. Wm. McConnell of the New York Board of Trade and Transportation. During the last weeks of the campaign sixty speakers were employed in this cart-tail campaign, speaking for canal improvement. Literature was distributed at over 1,000 mass meetings, at all ferries and many factories.

All of the metropolitan papers, except the New York *Sun*, the New York *Herald* and the New York *Telegram*, consented to publish a letter on the eve of the election signed by prominent men in favor of canal improvement.

Towards the end of October, 1903, Mr. Gustav H. Schwab was obliged to leave for Europe on the advice of his physician for a needed rest, and Mr. Chas. A. Schieren took the chairmanship of the Canal Improvement State Committee during the last two weeks of the campaign.

On October 30, 1903, a mass-meeting was held in Cooper Union, Ex-Mayor Schieren presiding, at which General Stewart L. Woodford, Senator Grady, Messrs. Bird S. Coler and Wm. F. King, Assemblymen Bostwick and Hornidge, and Mr. Robert Campbell, of the Central Federated Union, spoke; and other mass-meetings were held in

Brooklyn and on Staten Island in the last days of the campaign.

The strenuous work undertaken by the canal interests of the State resulted in the triumph of canal improvement through the adoption by the people at the general election on November 3, 1903, of the one thousand ton barge canal plan.

The majority vote given in favor of canal improvement was 245,312.

The railroad companies with their combinations are now powerless to hinder the splendid development of the Empire State and her supremacy in commerce and manufactures. Her commerce will be benefited by the assurance for all time of an independent means of communication between the seaboard and the Great West which will create prosperity along its path. Her manufactures will be benefited by the reduction of freight rates both on raw materials and on finished products, an advantage that cannot fail to attract to this favored territory not only those industries dependent on the metals but countless workers in other materials.

The farmer of the State of New York will be benefited by the growth of the capacity for consumption of his home market and by the cheapening of transportation on his products and of everything he buys.

The working man will benefit through the upbuilding of manufacturing industries throughout the State and by the reduction in the price of the necessities of life which the lowering of the rates of freight on the improved canal will bring about.

Finally, the railroad companies will be the principal beneficiaries of the improved canal system of the State as the multiplication of industries and the growth of commerce will insure to them increased business.

HENRY B. HEBERT

ACTION OF THE
NEW YORK PRODUCE EXCHANGE
RELATIVE TO RAILROAD DIFFERENTIALS AND CANAL ENLARGEMENT

BY HENRY B. HEBERT

Chairman of the Canal Association of Greater New York; Chairman, Committee on Canals, New York Produce Exchange; etc., etc.

Prior to 1882 the railroads terminating at New York, Philadelphia and Baltimore sharply competed for business for their respective home ports. This strife led to cutting of rates to ruinous figures, resulting in great financial losses to each of the contestants. To stop these freight wars and to establish a traffic agreement, these corporations met in joint session and at a conference held in January, 1882, Messrs. Allen G. Thurman, Elihu B. Washburn and T. M. Cooley were appointed an advisory committee to inquire into and report "upon the difference in rates that shall exist both eastbound and westbound upon all classes of freight between the several terminal Atlantic ports." In making a report July 20, 1882, this railroad commission declared for a cheaper freight rate from an initial western point of shipment to Baltimore and to Philadelphia than to New York. Upon this declaration the trunk lines entered into an agreement and established a rate of three cents per 100 pounds to Baltimore and two cents per 100 pounds to Philadelphia cheaper than to New York.

This preferential in the rate was not only an offset to the superior trade conditions enjoyed at New York, but it also removed to Chicago the control of ocean transportation, this

having been one of the chief factors in the commerce of the metropolis. This change of base gave the trunk lines the power to make a through rate upon land and sea from Chicago to any foreign point, the C. I. F. price being equal no matter through which Atlantic port the goods were transhipped. Under this traffic arrangement New York was reduced to the level of its competitors as a seaport, and its commerce was subject to the designs of a traffic monopoly.

In the winter of 1877-1878, the New York Central & Hudson River Railroad Company put into commission a terminal elevator for the storage and transfer of grain at the foot of Sixtieth Street, New York City. Soon afterwards the Pennsylvania Railroad and the Erie Railroad erected similar structures. Grain taken into these elevators was charged for a term of storage but was subject to free delivery by lighter to points about the harbor. This lighterage service cost the railroads about one-half cent per bushel; when vessels loaded at these elevators this expense was obviously saved for the carriers. No charge other than the cost of trimming cargo in the vessel was imposed for this delivery and this charge the vessel paid. This style of loading export grain became general for "full cargo" shipments; it was a profitable transaction both for the railroads and the grain shipper. In the course of a cereal year this business was very large and it incidentally attracted to New York the tramp steamer trade, giving employment to a great number of citizens, and yearly leaving in the city for steamer repairs and supplies vast sums of money. There apparently was no reason for disturbing this method of business, as on a delivery of 200,000 bushels to a vessel loaded at the elevator, there was a saving to the railroads for lighterage service of about $1000; and for the exporter it was an easy and expeditious mode of shipment. Yet the railroads, doubtless in accord with the discriminating differentials established by the Advisory Commission, put a further handicap upon the commerce of the port in the announcement that on and after July 25, 1882, all grain delivered into ocean-bound vessels at the railroad elevators would be charged one cent per bushel extra for such delivery. This

unreasonable tax upon export grain put a stop to this loading and diverted the business to Baltimore and to Philadelphia, and later built Newport News. The diversion of this business and loss of other business depending upon it, was a blow to the commerce of the State and city of New York, York, and hastened the decline that caused Governor Black in 1898 to appoint a State commission to inquire into its cause.

No organization suffered more from loss of business through the operations of the differentials than the New York Produce Exchange, and no commercial body in the State has been more active and aggressive in the movement for their abolition. At different periods since 1882, the Exchange has energetically protested through various committees against the enforcement of the differentials. In 1882 President Forrest H. Parker appointed E. A. Orr, Franklin Edson, E. R. Livermore, Leonard Hazeltine, Chas. R. Hickox, Franklin Woodruff, David Bingham, John Sinclair, John G. Dale, Anderson Fowler, Asa Stevens and Isaac H. Reed a special committee "to appear before the Advisory Commission and urge the necessity and equity of a uniform rate of freight between the West and Philadelphia, Baltimore and New York." Under a resolution adopted by the grain trade October 1, 1884, the Exchange appointed as a special committee, Messrs. Henry T. Kneeland, O. H. Armour, E. R. Livermore, Herbert Barber and T. A. McIntyre. The resolution reads as follows:

WHEREAS, Various efforts have been made by the New York Produce Exchange to induce the Trunk Lines to rescind their action taken in July, 1882, whereby a charge of one cent per bushel is imposed upon all grain loaded at railroad elevators into ocean-bound vessels; and

WHEREAS, This tax prevents any grain except through shipments from being delivered direct to vessels, and has stopped sales of "free on board" cargoes loaded at railroad elevators; and

WHEREAS, It is a tax that seems under the circumstances to destroy the usefulness of the elevators in the proper handling of grain in this market and has turned millions of bushels of grain to the water routes; therefore,

Resolved, That the President is hereby requested to appoint a committee of five to confer with the agents of the Trunk Lines and endeavor to remove the disabilities which the trade now suffers.

The report of the committee October 23, 1884, begins:

"The committee . . . beg to present the following as touching the question at issue: That in January, 1882, by request of W. H. Vanderbilt, President of the New York Central & Hudson River Railroad Company; H. J. Jewett, President of the New York, Lake Erie & Western Railroad Company; C. B. Roberts, President of the Pennsylvania Railroad Company; and John W. Garrett, President of the Baltimore & Ohio Railroad Company, an Advisory Commission was appointed upon 'the differences in rates that should exist, both easterly and westerly, upon all classes of freight between the several terminal Atlantic ports.' That during the first six months of that year (1882) the said Advisory Commission prosecuted its investigations, which when completed was given to the public in a report, dated July 20th, 1882, known as the 'Report of Messrs. Thurman, Washburn, and Cooley, constituting an Advisory Commission on Differential Rates by Railroads between the West and the Seaboard."

The scope of the authority which the appointment conferred is given on page 5 of the Advisory Commission's report, in the following language:

"Whether it is right or proper to make any such discrimination in the charges for transportation of property between the Atlantic cities and cities of the interior, and if so, to what extent, is the question that was referred to us and nothing more."

In considering the "principles that should control" the commissioners found three (page 12):

1. The distance principle.
2. The cost principle.
3. The principle of competition.

After careful analysis of the three they rejected "distance" and "cost" principles and rested their report on "competition." In regarding that governing principle, the commissioners state (page 37):

"They (the railroads) will submit to rates which give the business to other cities only until the trial proves the prejudicial operation."

On page 41 of the report the commissioners present their conclusions in the following terms: "Differential rates have come into existence under the operation of competitive forces. . . . We, therefore, cannot advise their being disturbed." The commissioners, however, assume that conditions may arise when the differentials should be modified or abolished, and referring to it make statement as follows:

"But we do not assume that the rates which are just today will be just indefinitely. They have become established by the force of circumstances, and they ought to give way if future circumstances shall be such as to render it right and proper. They constitute a temporary arrangement only; equitable, as we think, for the present, but which may become inequitable before the lapse of any considerable time. Whenever they shall be found to operate unfairly, and to give a forced or unnatural direction to trade, and whenever it shall appear that they tend to deprive any one of the seaports affected by them of the proportion of business that would naturally come to it under the operation of normal competition, the want of equity in rates will appear, and it will be right to modify, or perhaps abolish them."

"In their future dealings with the important question which has been the occasion for our coming together, the Great Trunk Lines should be particularly careful to give no occasion for just complaint, that they subject any one of the seaboard cities to the operation of arbitrary or unfair regulations or charges, or that they fail to observe towards any one of them, or towards the people trading or desiring to trade with them, the mandate of common law—to deal justly and distribute fairly the benefits and burdens which are incident to their occupation."

With the report of the Advisory Commission before them, the committee beg to call attention to the following facts:

1st. That at the time the report above quoted was made the differential rates were three cents per 100 lbs. to Baltimore and two cents per 100 lbs. to Philadelphia less than to New York.

2nd. That at the time the investigation was prosecuted the charge of one cent per bushel for loading ocean-bound vessels at New York railroad elevators was not imposed.

3rd. That the "New Rules" of the New York Grain Trade, whereby the basis of trading was changed from "afloat" to store (or

elevator) deliveries were operative, having gone into effect October 1, 1881. The committee deem these facts important, as bearing upon the report of the Advisory Commission made at the time when the differential rates were the same as at present, when the tax of one cent was not imposed, and when the same rules which now govern the grain trade of New York were in force. Having these facts in view, and calling to mind the demand made by the New York Produce Exchange, the Chamber of Commerce and other important commercial bodies, before the Advisory Commission, for "uniform rates to the seaboard," the committee hold that the Advisory Commission went to the extreme limit of their discretion when they reported, as has been shown, that the existing differential rates should not be disturbed, or to quote the exact language, "We cannot advise their being disturbed." (Page 42 of the report.)

The committee respectfully protest against the action of July 25, 1882, whereby the tax of one cent per bushel was imposed, as it increased the differential rates on grain and disturbed the status affirmed by the report. In considering this protest against the tax, two points arise, to wit:

1st. Why was the tax imposed?

2nd. How does the imposition of the tax disturb the differential rates?

As to the first point raised, to wit: "Why was the tax imposed?" if the traffic in through shipments of grain from western points to Europe occasioned it, the committee are of the opinion that the tax is an arbitrary one, since competition regulated the through rates, which are of necessity about uniform by all routes and the differentials should not apply to such through shipments. If the tax was imposed merely to protect the elevator interests at Baltimore and Philadelphia it was unfair since its enforcement was hurtful rather than helpful to the New York elevator interests. If the tax was levied because of a change made in the rules of the grain trade of New York in 1881 it was both arbitrary and unfair as it at once stopped sales of free-on-board cargoes to be loaded at railroad elevators, a proper and natural traffic which was the outgrowth of the railroad elevator system which was in operation here for years prior to the investigations of the Advisory Commission. A large grain trade at Baltimore and Philadelphia has been built up from almost nothing, all within a few years by the ceaseless energy of the managers of the Trunk Lines terminating at those cities.

We now come to the second point raised, to wit: "How does the imposition of the tax disturb the differential rates?" A charge of one cent per bushel is equivalent to 1⅔ per 100 lbs. on wheat and

peas and 1 785-1000 cents per 100 pounds on corn and rye and 2 08-100 on barley and 3⅛ cents per 100 pounds on oats. On this basis if, as the committee hold, the one cent per bushel tax was a disturbance of the differential rates affirmed by the Advisory Commission the effect of the charge was to increase the differentials between Baltimore and New York from three cents per 100 pounds on all grain to 4⅗ per 100 pounds on wheat and peas, 4 785-1000 per 100 pounds on corn and rye, and 5 08-100 per 100 pounds on barley and 6⅛ on oats. Having in mind that at the time the Advisory Commissioners prosecuted their inquiry that the rules governing the grain trade at New York were precisely as now and that no charge was then made at railroad elevators here for loading ocean-bound cargoes either upon local or through shipments; and that it is fair to suppose that every question at issue was considered by the commission, it seems to this committee that an addition of one cent per bushel to elevator charges here without a corresponding increase in the elevator charges at Baltimore and at Philadelphia, disturb the differential rates, particularly when previous to its imposition from 20 per cent. to 35 per cent. of all the grain received by railroad was loaded direct into ocean-bound vessels. The New York Produce Exchange believes that the railway companies have not traversed the special pleadings of the roads insisting upon the tax in the light of a simple correct understanding of the report on differentials rates, and that upon a careful review, the companies must adopt the conclusions of this committee and remove the tax imposed . . . in simple reliance upon their course, which is just, and upon a proper construction of the decision of the Advisory Commission as to the differential rates, they respectfully ask that the tax be removed."

The committee's report constitutes a pamphlet of twelve pages and only such portions of it are here recorded as bear directly upon the issue involved. It is needless to state that the efforts of the committee were unavailing and that the protest made no impression upon the managers of the trunk lines. An essential part in the Advisory Commission's report also seems to have been unworthy of consideration, to wit:

"Whenever they (the differential rates) shall be found to operate unfairly . . . it will be right to modify, or perhaps to abolish them." "In their future dealings with the important question which has been the occasion for our coming together, the great Trunk Lines should be particularly careful to give no occasion for just

complaint, that they subject any one of the seaboard cities to the operation of arbitrary or unfair regulations or charges."

The Joint Traffic Association was organized January 1, 1898, and consisted of all the trunk lines of railroads and their connections which extend eastward from the Mississippi River to the Atlantic seaboard. Under the new railroad management the differentials were strictly enforced resulting in a marked falling off in the receipts of grain, flour and provisions by rail at New York and a corresponding increase of these articles at rival Atlantic ports. For the purpose of bringing to the attention of the Joint Traffic Association this state of New York's commerce the Committee on Grain February 28, 1896, requested the Board of Managers to appoint ten members to act with the Committee on Grain as a special committee to wait upon the Joint Traffic Association and seek for the abolishment of the hostile differentials. In accordance with this request, President Henry D. McCord made appointments as follows: Henry B. Hebert, chairman; John Valiant, S. S. Marples, Chas. P. Sumner, O. M. Mitchel, John P. Truesdell. H. B. Day, Chas. E. Wilmot, Franklin Quinby, E. Pfarrius, James F. Parker. The committee was authorized "to confer with the board of managers of the Joint Traffic Association in reference to the rapid decline in receipts of grain, flour and provisions by rail and to secure such action on the part of the Joint Traffic Association as will correct the present discrimination in rail freights against this port." At a meeting of this special committee an executive committee was appointed as follows: Hebert, Truesdell, Valiant, Marples, Sumner, Mitchel. The committee had a conference with the Board of Managers of the Joint Traffic Association March 26, 1896, and the following report to the Board of Managers of the New York Produce Exchange refers to what transpired at that conference:

NEW YORK, March 31, 1896.

TO THE BOARD OF MANAGERS OF THE NEW YORK PRODUCE EXCHANGE:

Gentlemen—Your Special Committee, appointed March 5, 1896, to secure such action on the part of the Joint Traffic Association as will

prevent the present discrimination in rail freights against this port, beg respectfully to report that a joint meeting with the Board of Managers of the Joint Traffic Association was held on the 26th inst., at which time the attached protest against the continuance of the railroad differentials affecting the commerce of New York was presented.

The committee was very courteously received and heard by the railroad managers and a general discussion followed the reading of the protest, and a request was made of the committee for further information bearing on ocean rates of freight, which will be furnished as soon as collected and compiled.

The railroad managers refuse to place credence in the reliability of their own freight-rate records of the past, claiming that a practical test of the effect of the differentials dates only from the organization of the present Joint Traffic Association, January 1, 1896, and they are more inclined to await the result of their efforts to enforce the existing arrangements than to consider at this time the imperative need of this port of immediate relief from these differentials.

The following statement, showing the percentage of New York's receipts of wheat, corn and flour, during the period of the present association has been in operation, is an illustration of what we may expect of the continuance of the new program of the railroad managers, viz.:

The managers of the Joint Traffic Association claim that the differentials have been strictly maintained during the past three months, and it is during this period that the receipts at this port have been less than for thirteen years past.

The committee are of the opinion that the agitation now commenced should be energetically continued until all discriminations against New York have been removed, for it is asserted that the railroad agreement for maintaining grain freights for the coming season never was stronger, and this means a serious matter for the merchants of New York.

The Board of Managers of the Joint Traffic Association did not dispute the fact of the alarming decrease in New York's trade, as shown by the exhibits presented at the joint meeting, but they do not admit that the cause is the differential freight rate against New York allowed to the railroads terminating in competing outports. In fact, the New York roads, irrespective of the rights and mercantile interests involved at this port, have agreed to allow on produce arriving within the limits of our own State a differential of one cent per bushel in favor of Philadelphia on all grain at Buffalo. After a

thorough investigation of the subject your committee believe this discrimination against the commerce of this port to be as unjust in principle as it has proven destructive in its operation, and we would request that this special committee be continued and empowered to engage counsel, if necessary, and to appeal to the legislature in case no immediate relief can be obtained through the Joint Traffic Association.

Respectfully,

HENRY B. HERBERT,	CHAS. E. WILMOT,
JOHN P. TRUESDELL,	GRENVILLE PERRIN,
JOHN VALIANT,	HARRY B. DAY,
J. F. PARKER,	MONROE CRANE,
FRED V. DARE,	CHAS. P. SUMNER,
FRANKLIN QUINBY,	S. S. MARPLES,
E. PFARRIUS,	O. M. MITCHEL.

The conferences and correspondence with the board of managers of the Joint Traffic Association having failed in accomplishing desired results, it became evident that other methods must be taken; thereupon the Special Committee May 11, 1896, addressed a letter to the Hon. Geo. Blanchard, Railroad Commissioner, acting in behalf of the Joint Traffic Association:

"In reply to yours of the 2nd inst. the committee state that after careful perusal of the contents of said letter they fail to find in it any assurance or intent on the part of the Joint Traffic Association to remove the differentials. The committee has submitted to your Board of Managers carefully prepared statements substantiated by statistical and other facts demonstrating that the differentials have since their establishment diverted to ports favored by this railroad discrimination the commerce of this city. In the absence of any definite assurance from your association for relief we so urgently need, we feel constrained to carry our appeal to the Interstate Commerce Commission or such other tribunal as may seem advisable in our further pursuit of this subject.

Yours truly,

HENRY B. HERBERT,
Chairman Special Committee."

For the purpose of engaging counsel and citing the Joint Traffic Association before the Interstate Commerce Commission as violators of the Interstate Commerce Law, the

Special Committee petitioned the Board of Managers for an appropriation of $5,000, for expenses. At a meeting of the board held April 30, 1896, "It was unanimously resolved, that the request of the Special Committee on Railroad Differentials for an appropriation be granted and that an appropriation of $5000 or such part thereof that may be necessary be set aside for the use of said committee who are empowered to take such action as may be required to protect the Exchange." The Special Committee retained Mr. Abel C. Blackmar, as counsel, who with the assistance of Hon. John D. Kernan, prepared the complaint citing the railroads before the Interstate Commerce Commission. The following is a copy of the complaint:

COMPLAINT.

"That the said defendants have been guilty of violations of the provisions of Sections 1, 2, 3 and 4 of the said Act to Regulate Commerce, approved February 4, 1887, in that they have long established and maintained and do establish and maintain rates, charges, differentials, rules and regulations for the transportation of grain, flour, provisions and other produce from interior points to the city and port of New York and to the other competitive 'localities' and certain terminal charges at said seaboard localities, which rates, charges, differentials, rules and regulations for transportation of said merchandise to the city and port of New York, are unjust and unreasonable in themselves and relatively so as compared with the rates, charges, differentials, rules and regulations governing the transportation of like merchandise to the said other competing 'localities.' That the said rates, charges, differentials, rules and regulations constitute an undue and unreasonable preference and advantage to the 'localities' of Philadelphia, Baltimore, Newport News, Norfolk and Boston, and to the shipper and dealers and consignees doing business therein, and subject the locality of New York and the shippers, dealers and consignees doing business therein to undue and unreasonable prejudice and disadvantage, and that said differentials do thereby unjustly discriminate against the said port of New York," etc.

As evidence of the demoralization of the export and ocean shipping, reference is made to the following letters addressed to the committee:

HENRY B. HERBERT, ESQ.,

Chairman Committee on Grain, New York Produce Exchange.

DEAR SIR: With reference to your today's meeting, we beg to call your serious attention to the rapidly increasing loss by New York City of the export grain trade to Europe. Already years ago she was deprived practically of the full cargo business, which was diverted to other cities; and judging from the circumstances that are now taking place it is evident that New York is also losing the berth business, which is the sole remaining dependence in the grain export of this city. To our personal knowledge half a dozen steamers engaged in the regular New York trade to European ports with which we are accustomed to deal have lately, after their discharge of passengers and cargo here, been diverted to other Atlantic ports to load there grain and general cargo. At this moment there is still another regular line steamer, which it was never contemplated to load elsewhere, but which is now forced to leave this port at end of the week in ballast to receive a full cargo at Newport News for Rotterdam and Hamburg, for the sole reason that her agents were unable to obtain a cargo of grain here that can be had there in abundance.

We sincerely trust that your committee will devise some adequate means to restore to the merchants of this port and the members of the New York Produce Exchange their just share of the trade to European ports, which they have solely lost through the excessive and unjustly discriminating railroad freight rates and terminal charges in favor of Southern Atlantic ports and of Gulf ports, which now amount to say, 3½ cents per bushel. We beg to submit the following extract of a letter, dated January 25, 1896, and received from a valuable correspondent, viz.:

"You are right in supposing that for several months the Gulf ports have been quite underselling your market in maize, and it may perhaps interest you if we tell you that up to this date we have bought from other ports than New York 350,000 quarters maize. These purchases have all been made for shipment December to April and four or five big cargoes, bringing in all about 90,000 quarters have already arrived, and we have found the maize to be of most splendid quality. On the same day on which New York quoted, we bought from Gulf ports 7½ cents cheaper and you will see thus at once that your market is quite unable to compete."

Yours truly, HAGEMEYER & BRUNN.

HENRY B. HERBERT, ESQ.,

Chairman Grain Committee, Produce Exchange, N. Y.

SIR: We beg to add our testimony to the very serious condition of affairs menacing the commerce of this city through the rivalry of

other ports, and to express the hope that your committee will take energetic steps towards remedying it so far as it rests upon undue discrimination in favor of the outports. It is notorious how the export trade of the port of New York, chiefly in food products, has declined relatively to that of its rival ports, and if this decline in our export trade is suffered to continue a similar decline in our import trade is sure to follow. The increasing amount of tonnage returning to the outports for outward cargo and offering very low freight rates to attract inward business is a powerful help to the import business of our rivals.

The condition of affairs unfavorably affecting New York is brought forcibly home to us as agents of the North German Lloyd, Bremen, which also employs a number of its vessels in the trade between Baltimore and Bremen. It is our interest to draw as much as possible of the Bremen export trade to this port instead of Baltimore, and we have constantly urged our company to assist us by placing large freight carriers at our disposal, and they have responded to our requests, but the results, especially of late, have not been encouraging. At the same time that we were obliged to dispatch steamers only half full in spite of our offers of the lowest possible rates, Baltimore has dispatched steamers to Bremen with full cargo at paying rates and has called for more tonnage, which at times we have been obliged to supply by sending them a steamer from here in ballast or partly loaded. As instances we might mention that our steamer Stuttgart was to have sailed from here for Bremen the 14th inst., but owing to our inability to procure cargo for her here, we were obliged to dispatch her in ballast to Baltimore, where she received a full cargo. For the same reason we sent the H. H. Meier, this week, with part cargo to Baltimore to fill up there.

These are facts which we see, and which affect the interests of the city of New York just as directly as they do our own individually.

We trust you will find and enforce a remedy and are, sir,

Yours respectfully,

OELRICHS & COMPANY.

The initial hearing before the Interstate Commerce Commission was on the 15th December, 1897, in the Board of Managers' room, New York Produce Exchange. The plaintiff was represented by Hon. John D. Kernan and Mr. Abel C. Blackmar, of Baldwin & Blackmar, and the defendants as follows:

Hugh L. Bond, Jr., for Baltimore & Ohio System and Receivers.

James A. Logan, Geo. V. Massey, John G. Johnson and Evarts, Choat and H. T. Wickham, for C. & O. Ry. Co.

R. W. De Forest, for Central R. R. of N. J.

Samuel Hoar, for Boston & Albany R. R. Co

S. E. Williamson, for N. Y., C. & St. L. Ry. Co.

Frank Loomis, for N. Y. C. & H. R. R. R. Co.

Ashbel Green, for West Shore R. R. Co.

Francis I. Gowen and F. H. Janvier, for Lehigh Valley R. R. Co.

George C. Greene, for L. S. & M. S. Ry. Co.

John B. Kerr, for N. Y., O. & W. R. R. Co.

Henry Russell and Ashley Pond, for Michigan Central R. R. Co.

J. D. Campbell, for Philadelphia & Reading R. R. Co. and Receivers.

C. M. Cumming, for Erie System.

E. W. Strong, for B. O. S. W. Ry. Co.

T. J. O'Brien, for Grand Rapids & Indiana R. R. Co.

Silas W. Pettit, for Trades League, Board of Trade and Commercial Exchange of Philadelphia.

Sherman Hoar, for Boston Chamber of Commerce.

William A. Fisher, for Baltimore Chamber of Commerce.

The hearing at New York was largely devoted to the presentation of the complaint, which was lucidly and intelligently stated. Subsequent hearings were held at Philadelphia and Washington. The New York Produce Exchange presented testimony that incontrovertibly showed the great loss of commerce through the operations of the differentials. This evidently was the view of the Commission in reviewing the evidence. In its decision, rendered April 30, 1898, it alludes to this loss by stating: "It seems to be true that New York is in a measure losing its export grain business." The Commission's Report, a pamphlet of 73 pages, contains the following:

"Now the primary purpose of these differentials is, not to do justice to a particular port, nor to recognize the advantages of a par-

ticular port, but to enable the various competing lines to obtain a fair proportion of this traffic. In other words, the reason for those differentials is competition between railways."

"Upon no other theory could Boston, which is 234 miles farther from Chicago than New York, be given the same rate with New York, while Norfolk, which is 72 miles farther from Chicago than New York, has a rate of three cents per 100 pounds less."

"New York has no vested right in the having of so much grain shipped to that port."

"While there is much in the case to induce a different conclusion, and while we have arrived at this conclusion with a good deal of hesitation, we do not think that, upon the present record, the carriers have exceeded the limit within which they are free to determine for themselves. The principle upon which these differentials have been established is legitimate."

"We do not think, therefore, that they should be disturbed by us."

Section 3 of the Interstate Commerce Law states that "it shall be unlawful for any common carrier subject to the provisions of this act to make or give any undue or unreasonable preference or advantage to any particular person, company, or firm, corporation or locality, or any particular description of traffic in any respect whatsoever, or to subject any person, company, firm, corporation or locality, or any particular description of traffic, to any undue or unreasonable prejudice or disadvantage in any respect whatsoever." In passing upon the violation of this section the Commission state:

"Do these competitive conditions justify the preference of one locality to another? It is clear under the recent decisions of the U. S. Supreme Court, not that they necessarily do, but that they may. It was held in the Import Rate Case [Interstate Commerce Commission vs. Texas & P. R. Co., 162 U. S., 197; 40 Led., 940; 5 Inters. Com. Rep., 405], that competition *might* justify a railway line between New Orleans and San Francisco in carrying merchandise as a part of a through shipment from Liverpool to San Francisco at a rate which yielded to the company for its division less than one-third of what it received for carrying the same kind of merchandise from New Orleans to San Francisco." In the Troy case [Interstate Commerce Com-

mission vs. Alabama Midland B. Co., 168 U. S., 144; 42 Led., 414], it was determined that railway competition did justify the defendant in making a lower rate to a more distant point. Railway competition may, therefore, excuse the giving of a preference to a particular locality or a particular commodity, provided the interests of the public are not unduly sacrificed to those of the carrier." "In the light of these cases it is difficult to see why it is not perfectly legitimate for carriers to make differentials like those in question" (p. 660).

This adverse ruling to New York's complaint added impetus to the movement for canal improvement and doubtless led to the appointment by Governor Roosevelt of the New York State Canal Committee. The Interstate Commerce Commission in part of its report alludes to the State canals as follows: "The canal has been a most important element in her (New York) commercial supremacy; if that element drops out she must expect to lose that portion of her supremacy which was due to it" (p. 679). The great supremacy of New York in part has been measurably due to its canal. If it would hold that supremacy in the future it must give attention to the same waterway." "If the canal were to be restored today to the same position in this carrying trade that it occupied in the twenty years past the commerce of the port of New York could not suffer" (p. 680).

In the summer and fall of 1899 the Committee on Canals of the New York Produce Exchange held a succession of meetings discussing the competitive and economic features of the canal proposition. The result of these deliberations of the committee was the adoption of the following resolution:

"*Resolved*, That in the opinion of this committee the true policy of the State of New York should be the construction of a waterway connecting Lake Erie with the Hudson River of a greater capacity than can be afforded by the plan of which improvement has begun; that the principal benefits which will be conferred upon the State will be far in excess of any possible cost of said enlarged waterway. That we favor the construction and maintenance of a canal of a depth of not less than fourteen feet of water with corresponding

width, and if necessary a new alignment of canal should be made by canalizing the Mohawk, Seneca and Clyde rivers."

This resolution was sent to the Board of Managers for approval and at a meeting held September 21st it was approved in its entirety.

While the Committee on Canals was discussing the canal question the president of the Exchange received the following letter from Mr. John A. Frailie, secretary of the New York State Canal Committee:

NEW YORK, Sept. 13, 1899.

FRANK BRAINARD, *Esq., President Produce Exchange.*

DEAR SIR: General Greene has requested me to ask you if it will be possible for this committee to receive an expression of views from the Produce Exchange during the month of October, on the subject of Canal Improvement; or whether it will be preferable to hold a meeting of the Produce Exchange on this subject at which the Committee on Canals could be present and hear the views expressed.

Will you kindly let me know your decision on this matter as early as convenient. The Committee is very desirous of securing an expression of opinion from your body; and the importance of the subject is of course fully realized by yourself.

Yours very truly,

JOHN A. FAIRLIE,
Secretary, Committee on Canals of New York State.

President Barrows sent this reply:

"Your favor of September 13th, addressed to Frank Brainard, Esq., President Produce Exchange, has been handed to me for reply. We shall be pleased to have our Committee on Canals, composed of Messrs. Henry B. Hebert, chairman; Frank Brainard, Franklin Quinby, Thomas A. McIntyre, Franklin Edson, Gustav H. Schwab, George Milmine, John P. Truesdell, Alfred Romer and E. L. Boas, meet your committee in our assembly room at your pleasure, any time in October, and in addition it will give me great pleasure to tender your committee the use of our rooms for any public hearing that you might call, other than those of members of the Exchange. Our Canal Committee is composed of the leading men of our Exchange and are thoroughly familiar with the whole canal question, *i. e.*, as to the needs of trade and commerce of the port of New York. ELLIOT T. BARROWS."

During October, 1899, Chairman Greene and the entire State Committee attended several meetings of the Canal Committee of the Exchange. At the first meeting Chairman Greene stated that it had been the desire of the State Canal Committee to confer with business men and to ascertain their views of canal improvement. Having heard that the members of the New York Produce Exchange were considering the matter, he thought it a favorable opportunity to obtain the desired information. Chairman Hebert, replying, said that the deliberations of the Committee on Canals of the New York Produce Exchange had resulted in the adoption of a resolution which had been approved by the Board of Managers, recommending the construction of a barge canal of not less than fourteen feet depth of water with corresponding width. The statement of the factors that led to this conclusion brought to view the competitive and economic features of the project and caused a general and interesting discussion in which Chairman Greene and other members of the State Canal Committee participated. From the nature of the report to Governor Roosevelt it is only fair to assume that the conferences between the State Committee and the Canal Committee of the Exchange were largely instrumental in forming the State Committee's recommendation for the construction of a one thousand ton barge canal. After the publication of the report of the State Committee, Chairman Hebert received the following letter:

"HAMBURG-AMERICAN LINE,
37 Broadway, NEW YORK, Jan. 26, 1900.

DEAR MR. HEBERT:

I congratulate you upon your success as Chairman of the Produce Exchange Committee as it is no doubt due to your efforts that the State Canal Committee shaped its report as now published.

Yours very truly,

EMIL L. BOAS."

The New York Produce Exchange has always been a loyal supporter and defender of the canals of the State, and foremost in every effort to increase their usefulness as factors in transportation. In 1893 through its Committee

on Canals of which Mr. Geo. W. Balch was chairman, the Exchange advocated the deepening of the canals to nine feet of water; in furtherance of this project the Board of Managers February 5, 1894, issued a printed letter to the members of the Legislature urging the passage of a bill for this improvement. The letter set forth the advantages to be derived from the proposed deepening of the canals, stating:

" . . . when all that is suggested herein shall have been accomplished the canal will only mark to a degree the progress that has been made in the past quarter of a century the world over in increased transportation facilities. Within that period nearly the entire lake marine has been newly constructed on improved lines; ocean vessels have shared in similar betterments; and on the more important railway lines of the country every possible contrivance to conserve economy and increase carrying capacity has been made available. . . . The Erie canal alone has failed to share in any of the multitudinous betterments and improvements that a golden age of invention has wrought in the field of general progress. . . . We undertake to claim that with the Erie canal improved in accordance with the proposition covered by our proposed enactment, that the carriage through to tide water can and will be . . . rendered at so low a rate that . . . the railroads will not assume or undertake to compete . . . at any time during the season of navigation. . . . The ratable proportion of such cost of transportation will be as low on the Erie canal as on the lakes."

In the appendix to the letter the Board of Managers call attention to the cost of construction and carrying capacity of the lake and ocean vessels then current in comparison with the same features of a canal boat that would ply the improved canal. The statement is as follows:

"The cost of a lake steamer of 2700 net tons, capacity 90,000 bushels wheat, built of wood, with most approved outfit, would be $125,000. The average cost of a freight steamer of 4000 tons deadweight capacity, or 133,000 bushels, built of steel and fitted with modern appliances, British construction, would be, under favorable conditions, not less than $165,000. With the Erie canal improved on the lines suggested, the capacity of this fleet of boats would be so increased as to require but seven consorts and three steamers, thus reducing the cost of a fleet of 90,000 bushels' capacity to three

steamers at $22,500 and seven consorts at $3000 each—$21,000. In other words the ratable proportion of the canal equipment would stand for equal tonnage, at only 35 per cent. to that of the lake equipment. It is thought that, with the canal improved as suggested, the fleet of boats could make 8½ round trips from Buffalo to the seaboard, 307,000 bushels; . . . the cost of the service would be reduced to 1 47-100 cents per bushel."

"With the canal improved as now being urged the Erie canal could pass 3000 boats without incurring any considerable delay; the outcome of carrying capacity becomes stupendous. It is fair to assume that the eastbound tonnage capacity of the Erie canal alone would be 5,500,000 net tons and of grain upwards of 200,000,000 bushels."

The subsequent enactment of the Canal Improvement Law, its ratification by the people at the polls and the exhaustion of the $9,000,000 appropriation, leaving the canal only partially deepened, are matters that have passed into history and need no further reference in this article. As we now view this improvement it seems fortunate that no further effort was made to complete it. Doubtless the improvement would have accomplished all its advocates expected of it had the vessel tonnage on lake and ocean and the tonnage upon rail always remained the same as in 1894. The phenomenal increase of vessel and rail tonnage that has since taken place emphasizes the need, if the commerce of the State is to be conserved, of the construction of a barge instead of a boat canal.

For the purpose of obtaining a broader field of influence in the agitation for canal improvement in accordance with the views held by the New York Produce Exchange, a plan of coöperation was suggested by the Committee on Canals, resulting in President E. T. Barrows issuing the following form of invitation:

"NEW YORK, November 9th, 1899.

For the purpose of discussing the subject of canal improvement, and securing, if possible, harmony of action on the part of various organizations of Greater New York, the Board of Managers of the New York Produce Exchange invites your association to appoint a committee to attend a meeting of the representatives of other commercial organizations of New York and the Committee on Canals

of this Exchange to be held in the managers' room, New York Produce Exchange Building, on Tuesday, November 21, 1899, at 3 o'clock p. m. Invitations have also been sent to the Board of Trade and Transportation, the Merchants' Association, the Maritime Exchange, the Merchants' and Manufacturers' Board of Trade, the Manufacturers' Association of Kings and Queens Counties, the Mercantile Exchange, the Staten Island Chamber of Commerce, the Boatmen's Association and steamship companies."

The meeting was largely attended and subsequently the Cotton Exchange and other commercial bodies became identified with the Canal Association of Greater New York in its Campaign of Education.

The acceptance by Governor Roosevelt of the State Canal Committee's recommendation for improving the canals upon the lines of the one thousand ton barge plan and his advocacy of it, settled the question as to the character of this improvement. Yet there was a great deal to be done by the barge canal advocates before the desired result would materialize; it was evident that a vigorous campaign must first be undertaken. With this in view the representatives of the commercial organizations meeting with the Committee on Canals, by resolution created the Canal Association of Greater New York, electing Henry B. Hebert, chairman, Emil L. Boas, treasurer, and Frank S. Gardner, secretary. It is not the purpose of this paper to enter into details of the important work performed by this Association in its campaign for a one thousand ton barge canal; however, we may refer to a memorable private dinner, that had something to do with the educational features of the campaign.

There was a strong sentiment "up the State" favoring the completion of the improvement already partially done upon the canals. This proposition was strenuously opposed by the Canal Association of Greater New York. As it was the general belief that Governor Odell championed this project it was therefore desirable that the Governor should become acquainted with the views held by the commercial organizations of New York in regard to the matter. In the furtherance of the plan Mr. G. K. Clarke, Jr., a member of the Committee on Canals of the New York Produce Ex-

change, offered to entertain the Governor at his city residence, No. 38 West Fifty-third Street, and in a social way discuss the canal question from New York's standpoint. Invitations were issued "to meet Governor Odell at dinner Tuesday evening, December 6th, at half past seven o'clock." Covers were laid for eighteen. Around a circular table in the ample dining-room, sat at the right of the genial host, Governor Odell, and at his left, Lieutenant Governor Woodruff. Other seats at the table were occupied as follows: Andrew Carnegie, Gustav H. Schwab, I. N. Seligman, A. B. Hepburn, Lyman E. Cooley, Charles F. Clark, Henry B. Hebert, Samuel D. Coykendall, Chas. A. Schieren, D. LeRoy Dresser, W. E. Dodge, Gen. Francis V. Greene, Lewis Nixon, Anderson Fowler, Frank Brainard.

As a result of the after-dinner discussion, Mr. Nixon suggested the construction of locks upon the one thousand ton barge plan with a view that if it was found that the commerce of the State required the enlarged canal, the locks would be already built for it. This proposition was favorably received by Governor Odell; he said he would look into it. A gentleman of large legislative experience at Albany referring to the Governor's action relative to this project wrote Chairman Hebert as follows: "Governor Odell in his message to the legislature recommended that the number of locks on the Erie be reduced from seventy-two to forty-four; that these locks be enlarged to the one thousand ton capacity and that the deepening of the prism to nine feet be completed." Legislation embodying these features and appropriating twenty-eight million dollars therefor was introduced by Senator Davis. It applied to the Erie Canal alone, but subsequently the Governor accepted an amendment to include the Champlain Canal. When the bill was being considered in the Assembly it was further amended so as to include the Oswego Canal, raising the amount for the improvement another five million dollars. The Governor was opposed to the Oswego amendment and this opposition was doubtless the cause of its defeat.

The defeat of this canal bill cleared the legislative atmosphere and renewed efforts were made for canal improvement

upon the one thousand ton barge plan. The Governor ultimately became convinced of the correctness of this proposition and not only declared in favor of it in his letter October 8, 1902, in accepting the gubernatorial candidacy; but also in the summer of 1903, in his speeches delivered at various county fairs, he advocated the one thousand ton barge improvement, and advised the farmer to vote for it. After the ratification by the people of the referendum, the Canal Association of Greater New York congratulated the Governor upon his efforts in the canal campaign. In reply he wrote to Chairman Hebert:

EXECUTIVE CHAMBERS, ALBANY, November 5, 1903.

MY DEAR MR. HEBERT: I have your favor of the 4th inst. and thank you very much for it. I need not say that I am glad I was able to be of service in presenting to the people the proposition for canal enlargement.

With kind regards, I am,

Very truly yours,

B. B. ODELL, JR.

The barge canal proposition was not undertaken solely in the interests of business centered at Buffalo and New York nor with the idea that by the means of the enlarged waterway the increasing volume of lake commerce could be shunted through it from Buffalo to the Hudson river without consideration for the welfare of other sections of the State.

It was contemplated that the benefits arising from improved traffic conditions would be felt generally throughout the commonwealth, and would serve to check a decline in population and wealth that had unmistakably taken place in many counties. The extent of this depopulation is shown in the U. S. Census for 1900; the names of the counties affected are as follows:

Allegany,	population	in	1900	41,501	loss	1,739
Chenango,	"	"	.....	36,568	"	1,208
Columbia,	"	"	.....	43,211	"	2,961
Cortland,	"	"	.....	27,576	"	1,081
Essex,	"	"	.....	30,707	"	2,345

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

Greene,	population in 1900	.....	31,478	loss	....	120
Lewis,	" "	.....	27,427	"	....	2,379
Livingston,	" "	.....	37,059	"	....	742
Madison,	" "	.....	40,545	"	....	2,347
Orleans,	" "	.....	30,164	"	....	639
Oswego,	" "	.....	70,881	"	....	1,002
Otsego,	" "	.....	48,939	"	....	1,922
Putnam,	" "	.....	13,787	"	....	1,062
Rensselaer,	" "	.....	121,697	"	....	2,814
Schoharie,	" "	.....	26,854	"	....	2,310
Schuyler,	" "	.....	15,811	"	....	900
Seneca,	" "	.....	28,114	"	....	113
Tioga,	" "	.....	27,951	"	....	1,984
Washington,	" "	.....	45,624	"	....	66
Wayne,	" "	.....	48,660	"	....	1,069
Wyoming,	" "	.....	30,413	"	....	780
Yates,	" "	.....	20,318	"	....	683

Total depopulation in 22 counties 30,266

The significance of this depopulation may possibly be better understood when it is stated that it covers more than the population of the counties of Schuyler and Putnam combined and aggregates more than the combined population of the cities of Hudson, Corning and Olean. Accompanying this depopulation was evidence of a decrease in the value of property for taxable purposes amounting to millions of dollars; this feature in the decline of communities was of the gravest importance, for it was a condition that affected the entire State. The endeavor to improve the traffic situation so as to reëstablish prosperity to these localities, imparted to the canal improvement proposition something of a patriotic sentiment. The increase of the State's population for the decade, 1890-1900, was 1,271,041, of which 929,788 was within the four counties incorporated in the limits of the city of Greater New York, leaving 341,253 for the remaining fifty-seven counties. Had the accretion to the population at the metropolis been no larger than the average increase of those counties it is apparent that the population of the Empire State would have been in 1900 less than that of Pennsylvania. Commenting upon this matter Mr. Andrew

Carnegie under date of February 8, 1902, wrote Chairman Hebert: "The citizens of New York should take note that the State of Pennsylvania has gained more rapidly in population. . . . Indeed, if it were not for the abnormal increase of New York and Brooklyn, the State of New York would have ranked second in population ere this."

It was estimated that the low rate of freight which the barge canal would inaugurate would cause the commerce which the railroads had diverted from New York to return to its natural channel and in the adjustment of interior rail rates to correspond with those of the canal, the New York farmer in raising like products would be able to compete with the more distant farmer in the far West. It was also believed that the low rate of transportation by the "all-water route" of lake and canal would attract an important percentage of movement of iron ore from the Lake Superior region to points within the State of New York and would incite a development of the iron and steel industries. This would increase the population and wealth in cities and towns along the line of the canal, and would give to the agricultural sections of the interior enlarged markets and better prices for farm products.

It seems reasonable that the State should have a larger share in these prosperous industries. Conditions in New York are more favorable than in some states that are profiting by an increasing percentage of this traffic. The production of iron ore at Lake Superior mines since 1890 has been very large and has added to the employment and material wealth of the citizens of states having the advantages of lake navigation. The citizens of the Empire State have not participated in the development of this trade, possibly because of the transportation situation within its domain as there seems to be no other reason presentable.

The United States census for 1900 exhibits the marvelous increase in the production of iron ore in Michigan and in Minnesota, and the subsequent growth of the iron and steel industries in Pennsylvania and in neighboring states. This official record is substantially as follows: In 1890 the output of ore from these two states aggregated 8,033,566

long tons; in 1900 the output was 19,761,106, and in 1902 it was 26,272,865 long tons.

Pennsylvania shows the greatest growth in the manufactures of iron and steel, during the last decade (1890-1900) and New York the smallest. Appended is a comparative statement of the increase of capital invested and the value of products.

	Capital invested 1900	Increase over 1890	Value of Products 1900	Increased Value over 1890
Penn.	$546,858,260	$147,438,097	$767,033,374	$314,747,560
Ohio	85,528,552	49,355,165	138,935,256	73,728,428
Ill.	43,275,739	9,271,820	60,303,144	21,292,093
Ind.	14,994,210	6,845,115	19,338,481	14,595,721
N. J.	19,971,609	8,424,307	24,381,699	13,363,124
Mass.	13,738,593	4,848,038	13,491,159	2,290,010
		Decrease		Decrease
New York	12,183,866	3,798,569	13,858,553	1,989,984

For the purpose of extending agitation for canal improvement to "up-State" counties and placing this part of the campaign under separate management, the Canal Improvement Association of Western New York and the Canal Association of Greater New York in coöperation formed the Executive Canal Improvement State Committee: Gustav H. Schwab, New York, chairman; Henry B. Hebert, New York, treasurer; Frank Brainard, New York, John W. Fisher, Buffalo, Robert R. Hefford, Buffalo, Frederick O. Clarke, Oswego, Frank S. Witherbee, Port Henry. This committee appointed George H. Raymond, Buffalo, and John A. Stewart, New York, secretaries. The main office was in the New York Produce Exchange building.

The campaign was carried on with a great deal of vigor for a period of about four months extending into the fall of 1903. During the month of October, 1903, and until election day, Buffalo and Greater New York were the storm centers in the struggle "for and against" the referendum. The opposition was aggressive and unscrupulous in statement both in the public press and in other literature. Handbills requesting the citizens of New York to vote "NO" were

distributed at the elevated railroad stations and other points where people were in masses. A specimen of these bills, printed in type to attract the attention of the citizen is here presented (not in facsimile):

VOTE BUT VOTE **NO**

on Barge Canal Scheme.

BENEFICIARIES:

GRAIN SPECULATORS
THE CONTRACTORS
THE PADRONES

WHO PAYS FOR IT?

YOU.

This means higher taxes direct and indirect. The latter touch Everybody. Higher rents, higher licenses, heavier expenses, with no return.

VOTE NO.

If there is any intelligent man who thinks it will benefit the State or any section therein or any citizen thereof, save only the beneficiaries of the most stupendous graft ever suggested, let him vote for the Barge Canal. If he is not a grafter and if he has any regard for his own interest let him

VOTE NO

Extravagant estimates were made by the opponents of the canal as to the cost of the improvement, discrediting the amout of $101,000,000 named in the law and declaring that the improvement would cost more than $350,000,000. Every effort was made to influence the voter to vote "No" in voting on the referendum.

As an auxiliary to the Canal Association of Greater New York the Committee on Canals in September organized a

Canal Improvement League of fifty members of the Produce Exchange and, under the energetic leadership of its chairman, Mr. Albert Kinkel, most effective work was done. The League by popular subscription raised enough funds to carry forward its part of the campaign and a vast amount of literature was printed and distributed. It also put in circulation a great number of campaign buttons and badges on which was inscribed

"VOTE YES FOR THE CANAL IMPROVEMENT."

Under its auspices was held, upon the floor of the Exchange, a mass meeting at which Hon. Seth Low, the Mayor of the city, presided. Among those who addressed the meeting were former mayors of Brooklyn, Hon. Charles A. Schieren and David A. Boody. Other speakers were Hon. Chas. F. Bostwick, Professor Stevenson, Chairman Albert Kinkel, and Henry B. Hebert. Hon. George B. McClellan was invited to address the meeting, but owing to a previous engagement he was unable to attend and sent the following letter explaining his absence:

ALBERT KINKEL, ESQ.,
Chairman, Produce Exchange.

SIR: I have the honor to acknowledge the receipt of your invitation to be present at the Produce Exchange meeting of the Canal League, and to say that before its tender to me I had made an engagement which will preclude my attendance. I cannot, however, permit the occasion to pass without publicly attesting my sympathy with the project. The expense of the improvement is inconsiderable when compared with the obvious advantages which will accrue to the city from it. In comparison with the wealth and importance of the State at the time the Erie Canal was projected, its cost was, one might almost say, infinitely greater than the expense of the proposed improvement. The State never made a more profitable investment than that, and it would be shortsightedness now to even question the cost of the undertaking. In our day we must imitate the providence of our predecessors and contribute our share to the increase of the greatness of our city. In this respect I regard your enterprise as deserving of support of every citizen.

Yours very truly,
GEORGE B. MCCLELLAN.

In the morning papers, Monday, November 2, 1903, the following announcement was published:

The undersigned wish to impress upon the citizens of Greater New York the paramount importance of an overwhelming majority from this city at the polls, in favor of the 1000-ton barge canal improvement. This is the most important question before the people of the entire State today. At tomorrow's election no one should neglect to cast his ballot and if he has the interests of the city and State at heart, that ballot should be marked with an "X" opposite the word "YES."

SETH LOW,	GEORGE B. MCCLELLAN,
R. FULTON CUTTING,	BIRD S. COLER,
CHAS. A. SCHIEREN,	OSCAR S. STRAUS,
GUSTAV H. SCHWAB,	DAVID A. BOODY,
JOHN D. CRIMMINS,	FRED W. WURSTER,
WILLIAM F. KING,	JOHN H. WASHBURN,
ROBERT CAMPBELL,	HENRY HENTZ,
THOS. J. MCGUIRE,	HERMAN ROBINSON,
FRANK S. WITHERBEE,	WILLIAM MCCARROLL,
LEWIS NIXON,	HENRY B. HEBERT.

The large vote in favor of the referendum cast in the various boroughs of Greater New York is evidence of the effective campaign work done under the management of the Canal Association of Greater New York and of the Canal Improvement League of the New York Produce Exchange; but for this vote the referendum would have been ignominiously defeated. The day after the election Chairman Hebert received a number of telegrams and letters tendering congratulations and according to New York credit for the success of the barge canal project. The following are among those received:

BUFFALO, N. Y., Nov. 4, 1903.

The Buffalo Chamber of Commerce extends congratulations and hearty appreciation for the generous support given the canal proposition.

LEONARD DODGE,
President.

BUFFALO, N. Y., Nov. 4, 1903.

Congratulations. New York alone saved the day. Machine voting here made us trouble.

G. H. RAYMOND.

MEDINA, Nov. 5, 1903.

I wish to congratulate you upon the great work done in N. Y. City. You see we were right in warning you of the heavy vote up the State. By reason of the baneful influence of the Rochester papers we had a desperate battle with our rural voters in this county. Our village which contained only about 6000 people gave a majority of 1028. . . . By reason of the heavy vote here the county was carried and the adverse rural vote wiped out. Again we congratulate you on the result in Greater New York and in the State at large.

Very respectfully,

JOHN J. RYAN.

BUFFALO, Nov. 5, 1903.

Please accept my congratulations upon the results and especially for the magnificent New York majority. Your name will always remain connected with this great movement as one of its principal supporters. Yours very truly,

GEORGE CLINTON.

NEW YORK, Nov. 5, 1903.

The adoption by the people of the referendum on the Barge Canal proposition gives me the opportunity to say to you that the city and State of New York owe you a large debt of gratitude which I hope some day will be publicly and fittingly acknowledged.

Yours very truly,

R. S. WHITE,

President the New York Lumber Trade Association.

In the final throes of the campaign, expenses were much larger than contemplated. Before the closing days the funds of the Canal Association of Greater New York were nearly exhausted and there was little time in which to canvass for public subscriptions. An appeal was made to the Canal Committee of the Exchange and the situation was made known to the Board of Managers. The Board was asked for a subscription of $5,000. This financial aid was sufficient to carry the campaign to a successful end.

The liberal and staunch support given by the Board of Managers, financial and otherwise, to the Committee on Canals of the Exchange during the period for canal improvement, made it possible for the barge canal project to

be fostered and brought to a successful issue; but for this assistance in all probability the canals would have been completed upon the plan of 1894. It is, therefore, not too much to say that to the New York Produce Exchange largely belongs the credit for the improvement of the canals as now projected. Its Committee on Canals[1] was uncompromisingly committed to the barge canal plan, having the belief that a canal of smaller size would be useless as a competitor of the railroads. The Greene State Canal Committee's recommendation for a one thousand ton barge canal was endorsed because the capacity of such a canal approximated the plans of the committee. It also had the support of Governor Roosevelt which was an important factor in a prospective campaign. The wisdom of the committee's support of the

1. The Committee on Canals of the New York Produce Exchange, 1897 to 1904, was as follows:

1897—1904	Henry B. Hebert, Chairman;	1897—1898	E. M. Clarkson
1899—1904	Frank Brainard	1899—1904	Emil L. Boas
1897—1904	Franklin Quinby	1902—1904	G. K. Clark, Jr.
1897—1904	Thos. A. McIntyre	1903—1904	E. C. Bodman
1898—1904	Franklin Edson	1903—1904	John J. D. Trenor
1899—1904	Gustav H. Schwab	1902—1903	John V. Jewell
1897—1904	George Milmine	1902—1903	Josiah M. Favill
1897—1904	John P. Truesdell	1900—1904	D. M. Van Vliet
1898—1904	Alfred Romer	1902—1904	Frank E. Hagemeyer
1897—1898	James M. Martin	1902—1904	Wm. H. Douglas

The officers of the Exchange, 1897-1904, were:

	PRESIDENT.	VICE-PRESIDENT.	TREASURER.
1896—1897	Henry D. McCord	Frank Brainard	Edward C. Rice
1897—1899	Frank Brainard	F. H. Andrews	"
1899—1901	Elliot T. Barrows	"	"
1901—1902	John V. Barnes	Edward G. Burgess	"
1902—1904	Edward G. Burgess	R. E. Annin	"

BOARD OF MANAGERS.

1895—1899	F. H. Andrews	1902—1904	A. C. Fetterolf
1895—1896	V. B. McMahon	1903—1904	Nathaniel Doyle
1895—1899	James Doyle	1903—1904	Charles W. Bowring
1895—1899	Perry P. Williams	1903—1904	George H. Williams
1896—1898	Emilio Pritchard	1899—1901	Andrew J. Toomey
1896—1899	Frank W. Cominsky	1899—1901	R. E. Annin
1897—1899	Chas. W. Hogan	1900—1904	H. Myers Bogert
1898—1902	John Valiant	1900—	Oswald Sanderson
1903—1904	John Valiant	1900—1904	Frank I. McGuire
1898—1904	D. D. Allerton	1900—1902	P. A. S. Franklin
1898—1900	Samuel Taylor, Jr.	1901—1903	Yale Kneeland
1899—1901	F. V. Dare	1901—1904	Samuel L. Finlay
1899—1901	Vincent Loeser	1901—1903	Herbert Barber
1903—1904	Vincent Loeser	1901—1903	Benjamin Parr
1899—1901	Wm. Hamilton	1901—1903	Wm. H. Douglas
1902—1904	James F. Parker	1901—1903	Chas. B. Little

one thousand ton barge project was amply demonstrated by subsequent events.

It is not too presumptuous to say that the New York Produce Exchange desires to express its appreciation for the substantial services rendered by the commercial organizations of the metropolis and other parts of the State in cöoperation and support of this great movement, nor for the writer to here record his great regard for the members of the Committee on Canals who were associated with him during the years involved in the study and agitation for canal improvement.

MAJ. GEN. FRANCIS V. GREENE.

THE INCEPTION OF
THE BARGE CANAL PROJECT

By FRANCIS VINTON GREENE

Major General U. S. Volunteers, Chairman Committee on Canals of New York State, 1899.

When Theodore Roosevelt was inaugurated as Governor of New York in January, 1899, the most important and the most difficult question which he had to solve was that of the State canals. His party had narrowly escaped defeat—and but for his own personal popularity probably would have been defeated—at the election in the previous autumn on account of their mismanagement of the $9,000,000 improvement authorized by the legislation of 1894. Governor Roosevelt was extremely anxious to retrieve these mistakes of his party, and equally anxious to find a proper solution of the canal question the importance of which to the State of New York was universally acknowledged. After considering various projects, he finally decided to appoint a committee of private citizens, to serve without pay, to study the question in all its bearings and make a report to him as a basis for his recommendations to the Legislature. He appointed this committee by letter, dated March 8, 1899. I was selected as chairman, and the other members were Major Thomas W. Symons of the Corps of Engineers, United States Army, then stationed at Buffalo in charge of river and harbor improvements, Hon. Frank S. Witherbee of Port Henry in the Champlain district, Hon. George E.

Green, State Senator from Binghamton in the southern tier of counties, Hon. John N. Scatcherd of Buffalo, and the two State officials most intimately connected with the administration of canals, viz., Hon. Edward A. Bond, State Engineer, and Hon. John N. Partridge, Superintendent of Public Works.

The request of the Governor was simply that we should study the canal problem and advise him. His own words were as follows: "The broad question of the proper policy which the State should pursue in canal matters remains unsolved, and I ask you to help me reach the proper solution."

We devoted the greater part of the year, 1899, to a study of the subject and made our report to the Governor under date of January 15, 1900. It is a printed document of 231 pages with 7 maps, 36 charts and 69 tables of statistical information. The Governor promptly transmitted the report to the Legislature, adopting the conclusions and recommendations which it contained, and advising that legislation be enacted to carry them into effect. This was done in successive years, and meanwhile, additional surveys and estimates of cost were prepared under the direction of the State Engineer. The State printed an edition of several thousand copies of our report, and scattered it broadcast throughout the State for examination and discussion; and finally the project was ratified and adopted by an overwhelming vote of the people in the election of 1903.

It will be noticed that the question on which the Governor asked our advice was the policy of the State in canal matters; in other words, should the canals be abandoned, or maintained in their present condition, or enlarged, and if so, to what extent and at what estimated cost? In order to reach an intelligent conclusion upon these fundamental questions, and in order to convince others of the soundness of any such conclusion, we set to work to obtain statistical information concerning the rates of transportation by rail and on the ocean, the lakes and the canals, not only of New York, but of other states and of other countries. The information thus gathered was unusually full and complete,

and had never before been presented in similar compact form. It formed the basis of the argument in the debates which followed in the Legislature and before the people on the adoption of the project.

As to our conclusions and recommendations, the first question to be decided was whether or not the canals should be entirely abandoned. It was claimed by many that canal transportation was antiquated and altogether out of date; that "the railroads, with their large capital and scientific management, their durable roadbeds, powerful locomotives, larger cars, greater train loads, greater speed, and more certainty of delivery, will be able now or in the early future to reduce the cost of transportation below what is possible on the canals." If it should seem probable that the railroads could accomplish this, then it would be manifestly unwise and improper to expend any more public money upon the canals. A careful study of the actual facts in regard to transportation rates led us to form the following opinion: "In our judgment, water transportation is inherently cheaper than rail transportation. It varies slightly with the size of the vessel and the restriction of the waterway. On the ocean, where the waterway is entirely unrestricted and the size of the vessel is the maximum, it averages about half a mill per ton mile; on the lakes, where the vessels are not so large, and occasional restrictions are encountered on the waterway, it is about six-tenths of a mill per ton mile; on the canals of New York, where the boats are very small, the waterway greatly restricted, and obsolete methods are employed for handling the business, it is about two mills per ton mile. By the enlargement of the canal which we recommend, and the introduction of improved methods of management, we believe that the canal rate can be reduced to two-thirds of one mill per ton mile, or very nearly as low as the lake rates. All of these rates have varied in the past and will vary in the future to correspond with prosperity or depression in general business. But there is every reason to believe that they will maintain a corresponding ratio, the ocean, lake and canal rates being from one-third to one-

fourth of those by rail. The reductions which may be made hereafter in the railroad rate can be met by similar reductions in all three classes of the water rates, provided the same methods of skilled management are applied to all."

The phenomenal growth of the enormous tonnage on the lakes and the prosperity which it has brought to the states bordering on the lakes convinced us that a proper waterway across the State of New York would bring similar prosperity to this State; and we called attention to the fact that "New York has certain topographical advantages which it would be folly not to utilize. Through the valleys of the Hudson and the Mohawk and the comparatively low and level lands west of Oneida lake, it is possible to construct a water route connecting the Great Lakes and the Atlantic coast, and no such water route can be constructed through any other State."

We were also guided in reaching these conclusions by the action of the principal countries on the continent of Europe in regard to water transportation. Mr. Witherbee visited Europe in the summer of 1899, and traveled through France, Belgium and Germany, collecting a large amount of valuable reports relating to the economic and engineering features of the canals in those countries. From the information obtained by him, and from other sources, we were enabled to show the enormous development of inland navigation by means of canals and rivers, which had taken place during the previous twenty years in France, Belgium, Germany and Russia. In all of these countries the traffic on internal waters had increased far more rapidly than the transportation by rail.

From a consideration of all these facts we reached our first conclusion—which, like all the other portions of our report, was unanimously adopted—to wit, "That the canals connecting the Hudson river with Lakes Erie, Ontario and Champlain should not be abandoned, but should be maintained and enlarged."

The next point to be considered was, to what extent should they be enlarged, what size of vessel they should be

adapted to carry, and what would be the estimated cost of construction.

As to the proper size of the enlarged canal, widely different views were held by engineers and by economists. Some contended that the nine foot canal authorized in 1894 was sufficiently large; others brought forward the supposed advantages of a ship canal large enough to carry ocean-going steamers without breaking bulk from Duluth to Liverpool, or any other port; others contended that a canal of intermediate size would be found to be the most economical, would cost the least amount of money for the results produced, and would, in fact, produce a lower freight rate than either the small canal on the one hand, or the ship canal on the other.

To these questions we gave the most careful study. The ship canal had many glittering attractions, and there was a large sentiment along the lakes which had found expression in Deep Waterways conventions, which had been held in recent years and had advocated a water route of either 21 or 28 feet depth from Lake Erie to the Atlantic ocean. Congress had appropriated considerable sums for the purpose of making surveys and estimates of cost. It was argued that there was such a strong sentiment from so large a section of the country in favor of this project that the United States would adopt it and thus save the State of New York from any further expense in the matter. But a careful examination of the facts led us to the conclusion that while a ship canal of 21 or 28 feet depth would cost enormously more than a barge canal of, say, 12 feet depth, it would not produce as low a freight rate, and we based our conclusion on the following reasons. The cost of a barge adequate for transportation on the canals was less than $8 per ton of carrying capacity; the cost of a vessel to navigate the lakes was about $36 per ton; and the cost of a vessel to navigate the ocean was about $71 per ton. It was manifest that a barge suitable for transportation on the canals was not suitable for lake navigation; and that a vessel could be built with ample strength for navigating the

lakes which would certainly be destroyed in the first gale it encountered on the Atlantic. The lake and canal vessels could, therefore, not be used on the ocean. Moreover, the ocean vessel, being so much more expensive than the lake or canal vessel, and being designed for comparatively high speed, could not economically be used on the canal where the speed is limited to five or six miles an hour. The only advantage of a vessel sailing from any part of the lakes to any part of the ocean was the saving of the rehandling of the cargo at Buffalo and New York, but we found that this was less than the loss involved in using an ocean steamer for canal and lake transportation. We summarized the argument in these words:

"We have, then, the difference in first cost between $71, $36 and $8 per ton of carrying capacity for the three types of vessels which, in the evolution of business, have been produced as the most economical for the particular class of work each has to do. We do not believe that it is possible to combine these three types into one vessel, which will be as economical for the through trip as to use the three existing types with two changes of cargo, one at Buffalo and one at New York, or to use the boat of 1,000 tons capacity going through from the lakes to New York and there transferring its cargo to the ocean steamer."

And this led us to our second conclusion, which, as previously stated, like all others, was unanimous: "That the project of a ship canal to enable vessels to pass from the Upper Lakes to New York City (or beyond) without breaking bulk is a proper subject for consideration by the Federal Government, but not by the State of New York."

Having rejected the ship canal project, we had then to consider what size of enlarged canal we should recommend. In any event, we were satisfied that the route of the canal should be changed so as to use the waterways of the Seneca and Oneida rivers, Oneida lake and the Mohawk river in place of the present route; but the question was whether the depth of the canal should be 9 feet, capable of carrying a boat with cargo capacity of 450 tons, or a depth of 12 feet, carrying a boat with a cargo capacity of about 1,000 tons.

With such data as we could obtain in the short time at our disposal, and without adequate surveys, we estimated the cost of the smaller project at a little more than $21,000,000, and of the larger project at a little less than $59,000,000.

Our conclusion was in these words:

"In our judgment, arrived at after long consideration, and with some reluctance, the State should undertake the larger project on the ground that the smaller one is at best a temporary makeshift, and that the larger project will permanently secure the commercial supremacy of New York, and that this can be assured by no other means."

Major Symons made an exhaustive analysis of the methods of canal transportation as actually used, and a comparison of the ton mile costs of transportation with boats of various sizes, and showed conclusively that not only would the 1,000 ton barge project produce the lowest freight rate, but also that, taking the comparative estimates of cost, this project would produce the greatest economic value of the canal. His memorandum on this subject, which was published in the report, was accompanied by diagrams showing the successive growth of the size of the boat used on the canals from 1825 to 1862, since which date no improvement had been made on the canal of any consequence. It also showed by comparison the dimensions of the proposed barge, and indicated the manner in which it would be used in actual practice. While some members of the committee were at first disposed to recommend the completion, with certain modifications, of the nine foot project of 1894, yet after a long study and discussion the committee became unanimously convinced that the 1,000 ton barge canal project was the only proper and adequate solution of the problem.

We made a fourth recommendation in the following words:

"That the money for these improvements should be raised by the issue of eighteen-year bonds in the manner prescribed by the State Constitution, and that the interest and principal of these bonds should be paid out of taxes specifically levied, for benefits received, in the counties bordering in whole or in part on the canals, the Hud-

son river and Lake Champlain; such taxes to be levied in proportion to the assessed valuation of the real and personal estate in such counties. These taxes will amount to about 10 cents per $100 of assessed valuation annually during the period of eighteen years."

Our object in making this recommendation was to disarm the opposition of the non-canal counties which opposed the expenditure of State money for a project from which they claimed they could derive no benefit. In answer to this, it might be said that the whole State was benefited by the canal improvement, and that every county should bear its share of the expense. We also submitted statistics in tabular and graphic form showing that the valuation of the river and canal counties was 90% of the entire valuation of the State. In any event, they would bear 90% of the expense, and it was thought wise to suggest that they bear the entire expense so as to remove every ground of alleged injustice in taxing the counties which claimed to derive no benefit.

This recommendation was not adopted by the Legislature, nor submitted to the people. It was, in fact, somewhat cumbersome, and as we showed conclusively that the non-canal counties would only have to pay 10% of the cost of improvement, it was evidently thought not worth while to introduce a new method of taxation for State improvements.

At the election the non-canal counties voted against the project by large majorities, St. Lawrence county, for instance, being 12 to 1 against it, and Steuben county, 10 to 1 against it; but, on the other hand, the canal counties voted in favor of it by almost equally large majorities, New York being 9 to 1 in favor of it; Kings, 8 to 1; Queens, 5 to 1, and Erie, nearly 5 to 1. For some unexplained reason Monroe county, in which Rochester is situated, and Onondaga county, in which Syracuse is situated, voted against it. The overwhelming vote, however, in the counties at the two terminals, New York and Buffalo, made a majority of 245,312 in the entire State in favor of the project, and a total vote of 1,100,708.

In regard to the term for which the bonds were to run, this was changed from eighteen to fifty years by an amendment to the Constitution, adopted at the same election of 1903.

Our fifth and final recommendation was as follows:

"That the efficiency of the canals depends upon their management quite as much as upon their physical size, and that no money should be spent for further enlargement unless accompanied by measures which will accomplish the following results:

(a) The removal of all restrictions as to the amount of capital of companies engaged in transportation on the canals, and the encouragement of large transportation lines for handling canal business, in place of hampering them, as has hitherto been the case.

(b) The use of mechanical means of traction, either steam or electricity, in place of draft animals; and the use of mechanical power in place of hand power for operating the gates and valves, and moving boats in locks.

(c) The organization of the force engaged on the public works of the State on a more permanent basis, so as to afford an attractive career to graduates of scientific institutions, with the assurance that their entry into the service, their tenure of office, and their promotion will depend solely on their fitness, as determined by proper and practical tests.

(d) A revision of the laws in regard to the letting of public contracts by the State, so as to make impossible a repetition of the unfortunate results of the $9,000,000 appropriation."

Legislation has already been adopted to carry into effect (a) and (c); the adopted plans for the canal are in accordance with (b); and the specific form of contract which we recommended in connection with (d) was not adopted, but another form of contract was adopted which will practically accomplish the same result.

It only remains to speak of the cost of the project. With such data as we had available and with such surveys as were possible during the year, 1899, we estimated the cost of the project we recommended at $58,894,668 for the Erie canal and $2,642,120 for the Oswego and Champlain canals, making a total of $61,536,788. This contemplated a canal with 12 feet depth and suitable locks for carrying a

barge of approximately 1,000 tons capacity from Buffalo to the Hudson river, but as to the Oswego and Champlain canals, it recommended only the completion of the work already undertaken to provide for boats of six feet draft. While we believed these estimates to be adequate, yet we earnestly recommended an appropriation of $200,000 for the purpose of making detailed surveys and further estimates. This appropriation was immediately made by the Legislature and the work entrusted to the State Engineer, Mr. Bond, who had been a member of the committee, who promptly and skillfully made, at a cost less than the appropriation, an exhaustive series of surveys on which final estimates of cost were made. It was ultimately determined to enlarge the Champlain and Oswego canals to the same size as the main canal between Buffalo and the Hudson river, and also to include the dredging of a 12 foot channel in the Hudson river, which we had anticipated would be done by the Federal Government. This enlargement of the project very materially increased the cost, and in the interval between the time of our report and the completion of the detailed report of the State Engineer, the prices of labor and materials had very largely advanced. In order to cover all possible contingencies, the State Engineer carried his estimate to $101,000,000, and this was the amount appropriated by the Legislature and ratified by the people at the election of 1903.

In our report we figured on bonds running for eighteen years, and showed that the annual amount of interest and sinking fund to extinguish the bonds in that period would amount to a little more than 10 cents per $100 of the then assessed valuation; that the aggregate State, county and municipal taxes at that time averaged about $2 per $100 valuation; and that the carrying out of the project would increase the tax rate from $2 to $2.10, or in other words, "to the person or corporation paying taxes on $1,000,000 of assessed valuation it would increase his tax bill from $20,000 to $21,022 per annum; to the man owning a $50,000 house in New York City or Buffalo it would increase his taxes

from $1,000 to $1,051 per annum; and to the farmer with a farm valued at $5,000 it would increase his taxes from $100 to $105.11." We went on to say that—

"If the enlargement of the Erie canal will restore to New York its former proportion of the grain trade, and in addition will develop the iron and steel industry within its own borders; in a word, will permanently establish the commercial supremacy of New York, which is now not only threatened but partially lost, the foregoing sums are a small amount to pay to bring about such results. They are small as compared with what New York has done in the past for the same purpose."

We showed that in the past the canal debt at one time reached an amount equal to 3.8% of the entire valuation of the State, whereas what we recommended was less than 1.4% of the valuation. We showed that the taxation for canal purposes in the past had frequently been as high as 20 cents per $100, whereas what we recommended was barely one-half that amount. In point of fact, the financial burden will prove to be very much less than we anticipated, partly due to the fact that the assessed valuation of the State has increased much more rapidly than we anticipated, and partly to the fact that the cost is spread over fifty years instead of eighteen years. The assessed valuation of the State is already much in excess of $8,000,000,000, and the taxation for canal purposes has not as yet reached $1,000,000, or 1¼ cents per $100 instead of 10 cents per $100 as we estimated. It is believed that the total cost will fall several million dollars below the estimate of $101,000,000, but in case that entire amount should be expended, the assessed valuation of the State will at that time be close upon $10,000,000,000, and the interest and sinking fund to extinguish the debt at maturity will be not more than $2,250,000 per annum, or 2¼ cents per $100 of valuation, or less than one-fourth of the financial burden we estimated.

In many respects the barge canal project is comparable in extent, in magnitude, and in results with the Panama canal project; but in comparison with the immense resources of the imperial State of New York, in comparison

with the vast sums which the city of New York is expending for public works, in comparison with the equally vast sums which the great railroad systems have within the last few years expended and contemplate expending in the immediate future, the expenditures for the barge canal are small. If, as it is confidently expected, they produce the desired results and retain the supremacy of the great trade route through the State of New York between the lakes and the ocean, then the price to be paid, measured by the results obtained, is almost insignificant.

THE UNITED STATES GOVERNMENT AND THE NEW YORK STATE CANALS

By THOMAS W. SYMONS

Colonel Corps of Engineers, U. S. Army, retired; Member of the New York State Advisory Board of Consulting Engineers, Albany.

Before the original Erie canal was built by the State of New York efforts were made to induce the General Government to build it or to aid in building it. The movement was unsuccessful and the General Government has never aided the State in any of its canal work. It has, however, through its officials, made various examinations, surveys and reports, some of which have been extensive and of importance in the final settlement of canal questions. It was as a public officer of the United States that I made my first official acquaintance with the great canal problems of the State of New York.

When I first arrived in Buffalo in 1895 to take charge of the river and harbor works of the vicinity, two canal movements of interest and importance to Buffalo, Erie County and New York State were under way.

One was the work of improving the present Erie canal by the State of New York under what is known as the $9,000,000 act, which act was passed in 1895. The improvement contemplated under this act was the deepening of the canal and locks to nine feet and doubling the length of the

locks so as to allow two boats connected up tandem to pass through at one lockage. It was soon found, however, that the cost of the work contemplated had been greatly underestimated and it was stopped after much money had been expended, but before anything of importance to navigation had been accomplished.

The other movement was much more widespread, but had not reached the era of actual work. It was the agitation and demand throughout all the region of the Great Lakes and a goodly portion of the Atlantic seaboard for a ship canal connecting the lakes with the sea. Many letters were written to the press, favoring the project. The newspapers of the region had many articles and editorials in the same line. Numbers of public meetings were held and enthusiastic speeches made for the ship canal project. Orators and writers depicted the magnificence of the future when great ocean ships should leave Liverpool and other foreign ports and proceed directly to Chicago, Duluth and all the other chief cities of the lakes bringing the commercial productions of the world and exchanging them for the grains, lumber, ore, etc., of the Northwest, right in the heart of the continent. Some, more conservative, were content with the idea of a canal which would permit the ships of the Great Lakes to reach the seaboard and there deliver their loads to the people of the coast or exchange their foreign-bound cargoes with the deeper draft ships engaged in ocean commerce. The glamor of the Ship Canal from the Lakes to the Sea, like a brilliant aurora borealis, shone brightly over the whole lake region.

Under the inspiration of the movement the Governments of the United States and Canada created an international "Deep Waterways Commission," "to examine and report whether it was feasible to build such canals as shall enable vessels to pass to and fro from the Great Lakes to the Atlantic ocean."

After a year's investigation and study this Deep Waterways Commission reported "that it is entirely feasible to construct such canals and develop such channels as will be adequate to any scale of navigation that may be desired be-

tween the Great Lakes and the seaboard," and recommended that complete surveys be made on which to base projects for ship canals from Lake Erie to Lake Ontario, and from Lake Ontario to the Hudson river via the Oswego and Mohawk rivers, and *via* the St. Lawrence river and Lake Champlain.

Following the report of this international Deep Waterways Commission the United States Government took up the burden of expenses and created a Board of Engineers to make surveys for ship canals of various sizes and by varying routes from the Great Lakes to the sea.

The law authorizing these surveys and creating the board for making them was passed June 4, 1897, and is as follows:

"For surveys and examinations (including estimates of cost) of deep waterways and the routes thereof between the Great Lakes and the Atlantic tidewaters, as recommended by the report of the Deep Waterways Commission, transmitted by the President to Congress January 18, 1897, one hundred and fifty thousand dollars. Such examinations and surveys shall be made by a board of three engineers to be designated by the President, one of whom may be detailed from the Engineer Corps of the army, one from the Coast and Geodetic Survey, and one shall be appointed from civil life."

On July 1, 1898, another appropriation of $225,000 was made and the item making the appropriation contained the following language: "And the said board shall make a report of the progress of the work to the Secretary of War, for transmission by him to Congress at the commencement of its next session, and submit in their report the probable and relative cost of various depths for said waterway respectively, as follows, twenty-one and thirty feet, with a statement of the relative advantages thereof."

On March 3, 1899, a further appropriation of $90,000 was made for the surveys, etc., and in 1900 there was an additional appropriation of $20,000, making the total amount expended for the surveys $485,000.

The report of this Board of Engineers was submitted June 30, 1900. It is a large volume of text with a second volume of maps, plans, etc., and contains a large amount of valuable information. In it estimates are made of the prob-

able cost of canals 21 feet deep and canals 30 feet deep, with properly proportioned widths and by various routes, and the necessary improvements in lake and inter-lake channels.

The estimated cost of a 21-foot canal from Duluth, Minn., to New York, via the upper lakes, the Niagara river, a canal about the Falls from La Salle to Lewiston, Lake Ontario, St. Lawrence river, Lake Champlain and the Hudson was stated at $190,382,436. The same 21-foot canal *via* Oswego, Oneida lake and the Mohawk river would cost $206,358,103. For the 30-foot canal *via* the same routes the estimated cost was stated at $320,099,083 for the Champlain route, and $317,284,348 for the Oswego-Oneida lake route.

These estimates for the 30-foot canals do not include the cost of deepening lake harbors to accommodate the deeper draft sea-going vessels. This, of course, would be a tax on the individual harbors, but its aggregate amount would be many millions of dollars.

A study of the board's detailed estimates and recent experiences on the New York State barge canal construction, the increased cost of labor and materials since the report was completed, and the infinite complications which would arise to vested interests and properties in doing such a work, indicate very clearly to me that these estimates would have to be largely increased, probably by from 25 to 50 per cent.

The report discusses the advantages and benefits to be obtained from the different size ship canals, but apparently favors the 21-foot canal, saying: "The return of direct benefit from the 21-foot waterway is much greater than the return from the 30-foot waterway."

This elaborate and expensive report on the ship canal question on its presentation and publication fell flat and has scarcely been heard from since except to use some of its findings and statements for contentious purposes, and its maps and data for other canal projects. No official effort to bring it up or to cause its suggestions or recommendations to be carried into effect was ever made. The apparent reason for this practical obliteration of the ship canal from official consideration was the fact that while it was in

progress the question of the relative economy and efficiency of ship and barge canals was studied and analyzed by the writer and others and found to be largely in favor of a barge canal.

During the session of Congress of 1895-'6, a bill was introduced appropriating $2,000,000 "to widen the locks of the Erie canal so as to permit the passage of modern torpedo boats and other vessels of war of similar dimensions for the protection of the lake cities." The writer of this paper, then stationed in Buffalo, was called upon to make a report on this bill. An examination of the subject was made and a report submitted, dated December 1, 1890. The report contained a description of the Erie canal and the improvements then projected and fairly commenced under the $9,000,000 act which had been approved by the people of New York in 1895. It showed that all the torpedo boats of the navy then built or under contract with the exception of two would pass through the canal as it was then being improved. Also that we had no other "vessels of war of similar dimensions," except a few gunboats, which had a draft of 12 feet and which would not be accommodated in the canal by the widening of the locks alone.

For this reason, in addition to the estimates submitted for the widening of the locks alone, additional estimates were submitted for deepening them.

The cost of enlarging the locks on the Erie canal to a width of 25 feet, length of 250 feet, and depth of nine feet was estimated at $4,287,000. If widened to 31 feet the estimated cost was $4,824,000. If widened to 37 feet the estimated cost was $5,361,000.

The report concluded with an argument for the radical enlargement of the Erie canal on commercial grounds indicating the advantages to be gained thereby. The bill as introduced in Congress did not pass, and the New York State work under the $9,000,000 act soon stopped as previously stated, and New York's great canal question was "up in the air" again.

In the meantime, while this investigation as to widened locks and the $9,000,000 work was going on, an investiga-

tion far wider in scope and character and of much greater consequences to the State and the country was being made by the writer of this article.

The River and Harbor Act of June 3, 1896, contained the following provision:

"The Secretary of War is hereby directed to cause to be made accurate examinations and estimates of cost of construction of a ship canal by the most practicable route, wholly within the United States, from the Great Lakes to the navigable waters of the Hudson river, of sufficient capacity to transport the tonnage of the lakes to the sea."

As there was an insufficient amount of money available to carry out literally the evident requirement of Congress for a survey, it was resolved by the War Department to treat this item as an ordinary preliminary examination, and to have a report prepared giving such information as was then available, such facts as could be secured regarding the worthiness of the improvement and an estimate of the cost of such a survey as must precede the preparation of detailed plans and estimates of cost.

The work was placed in charge of the writer by letter from the Chief of Engineers, dated August 13, 1896, and the report called for was submitted June 23, 1897.

In fixing upon the scope of the investigation the language of the law had to be interpreted.

The term "navigable waters of the Hudson river" was taken to mean waters of equal navigable capacity to those of the canal of which they would form an extension and part of the contemplated highway to the sea.

The most important interpretation was that of the phrase "tonnage of the lakes," for this brought up and made pertinent the economical comparison of ship and barge canals.

The item in the law which requires that the canal shall have "sufficient capacity to transport the tonnage of the lakes to the sea" was interpreted in two ways.

First. That the canal and all its structures should be of sufficient size to pass the largest vessels of the lakes, and

to pass enough of these large vessels and smaller ones to transport all the freight desiring to pass through.

Second. It was considered that the law might be interpreted to mean that the canal should have the location and size which would at the least cost for construction and maintenance enable the freight passing between the East and the West—"the tonnage of the lakes"—to be transported at the smallest cost. This latter was regarded as the broader view of the subject and its study was deemed necessary in order that a correct conclusion, from a business and economical standpoint, might be arrived at.

Under the first, or large ship canal, interpretation, three routes were considered: First, the present Erie canal route, including the Hudson river; second, a route *via* canal about Niagara Falls, Lake Ontario, the St. Lawrence river, Lake Champlain and the Hudson; and, third, another *via* canal about Niagara Falls, Lake Ontario, Oswego river, Oneida lake, the Mohawk river and Hudson river. For reasons stated in the report the last or Oswego route is the only one seriously considered, the others "wholly within the United States" being impracticable for a ship canal.

Under the second, or barge canal, interpretation, but one route was seriously considered, that by the present Erie canal entirely within the land boundaries of the State of New York. Three sizes of canals were considered by this route: first, the Erie canal as now existing; second, the Erie canal as it was then being improved by the State to nine feet depth and with locks doubled in length; and third, the canal improved to what was then designated as barge canal size; that is with locks 12 feet deep, 33 feet wide, and 420 feet long in the clear, with intermediate gates, and a prism 12 feet deep and a minimum bottom width of 82 feet.

The gist and greatest value of the report consists in the careful investigation that was made into the cost per ton of carrying capacity of lake ships and canal barges, and the cost of operating the same. These costs, with the items of transfer at Buffalo, insurance on vessels and cargoes, interest on investment and deterioration, all reduced to a

single unit of freight, enabled a comparison to be made between the economy and efficiency of a ship canal and a barge canal.

It was roughly estimated that the ship canal would cost $200,000,000 and the barge canal (Erie alone) $50,000,000. The estimated cost per ton of carrying capacity of steel lake freighters was determined to be from $35 to $50, while the cost per ton of carrying capacity of canal barges, including a steamer with each fleet, all suitable for navigating the canal, was $10 to $20.

With everything reduced to the same basis, it was calculated that the cost of transporting a bushel of wheat in lake freighters of 7000 tons capacity through a suitable canal from Buffalo to New York was 2.28 cents, while the cost of transporting the same bushel in a fleet of barges, each carrying 1500 tons, through a suitable barge canal from Buffalo to New York, and including the transfer charges at Buffalo was 2.07 cents, and if the transfer charges were reduced, as they have since been reduced, was 1.66 cents.

In making this comparison no consideration was given to the cost of the canal or the cost of operating it, the basis of comparison being the interest on the cost of carriers, deterioration thereof, insurance of carriers and cargoes, ordinary repairs, fuel, oil, and waste and the wages and subsistence of the crews of the vessels. If the first cost of the canal and the cost of maintenance and operation were taken into consideration, the showing in favor of the barge canal over the ship canal would have been still more marked.

The study was convincing that for the highest economy in transportation, special types of vessels are needed for use on the ocean, on the lakes, and on the canals, and neither can replace the other in its proper waters without suffering loss of economical efficiency. Ocean vessels could not, as a general rule, engage in the business of passing through a ship canal and the lakes to the upper lake ports, and lake vessels are not fitted for use upon the ocean, and if they made use of a canal they would have to transfer their cargoes at the seaboard, ordinarily by means of lighters, float-

ing elevators, etc., at a higher expense than such transfers would cost at the lower lake ports. For economical transportation through a canal from the Great Lakes to the sea special vessels, differing from and far less costly than ocean or lake vessels, are required.

The conclusion was reached by the writer that even if a ship canal were built, the greater cheapness of barge canal transportation would prevent its use by large ships, and cause it to be used almost entirely by fleets of barges which could be almost equally as well accommodated in a smaller and cheaper canal.

The report concludes with the statement that the construction of a ship canal from the Great Lakes to the sea is not a project worthy of being undertaken by the General Government, as the benefits to be derived therefrom would not be properly commensurate with its cost.

Also that the enlargement of the Erie canal to a capacity suitable for 1500-ton barges, with locks long enough to take in two barges connected up tandem with everything adapted "to transport the tonnage of the Lakes" is a project worthy of being undertaken by the General Government, as the benefits to be derived therefrom would be properly commensurate with the cost.

The report was submitted June 23, 1897, and published in the Report of the Chief of Engineers for 1897. No action was taken on it by the General Government, but it had an important influence in shaping public opinion in New York, in killing the ship canal idea, and in furnishing a standard about which the canal interests of New York could rally. The $9,000,000 fiasco, the dazzling pictures of the ship canal advocates, and the dismal pictures of the enemies of all canals, had produced a state of bewilderment in regard to the canal questions. The report advocating a barge canal for boats of about 1500 tons capacity cleared things up and was a solution of the problem which was received with favor and grew in estimation, until it was finally adopted by the State and, with modifications, is now being carried out.

The adoption of the barge canal plan was brought about largely through the medium of a board or committee appointed March 8, 1899, by Governor Roosevelt to consider "the broad question of the proper policy which the State of New York should pursue in canal matters."

This committee, of which the writer was a member, consisted of engineers, business men, men familiar with transportation matters both by water and rail, and certain State officials. It gave about a year of hard work to the problem. It made a report dated January 5, 1900, which is teeming with statistics and information and which concludes with the unanimous recommendation that the Erie canal be improved by making it 12 feet deep, with locks 328 feet long and 28 feet wide, and that the Oswego and Champlain canals be improved in accordance with the plan of 1895, making them nine feet deep and with locks of the size of the present Erie canal, but doubled in length.

This matter was taken up by the Legislature on the recommendation of Governor Roosevelt and an appropriation of $200,000 was made for surveys and preparation of plans and estimates of cost. It was decided by the Legislature to include the Oswego and Champlain canals with the Erie for improvement to barge canal size.

The final estimated cost of the entire work was $101,000,000, and this was approved by the Legislature and finally by the vote of the people.

Subsequently by action of the Legislature and the Canal Board, the locks were required to be enlarged to 45 feet in width, making the capacity of the canal as measured by the size of the locks almost identical with the capacity recommended by the writer in his report to the General Government of 1897.

One of the provisions of the law providing for the construction of the barge canal as it finally passed the Legislature and the people, was a clause requiring the supervision of the work by a board of five expert engineers. Because of his previous connection with the work, the writer was requested by the Hon. B. B. Odell, then Governor of New York, to serve on this Advisory Board of Consulting Engi-

neers. To enable this to be done required a special act of Congress, which was secured, and on this board the writer has continued his connection with the barge canal work up to the present time.

All that which goes before in this article refers to the work of the General Government or officials thereof during the present generation. Previous to this it had caused to be made various studies, surveys, plans and estimates for canals passing wholly or partially through New York State and which will be mentioned here as matters of historical interest.

1808.

In the year 1808, pursuant to a resolution of the Senate of the United States, the Secretary of the Treasury submitted to that body a report which included a ship canal about Niagara Falls, from Schlosser's to Lewiston *via* the Devil's Hole. As far as is known this was the initial appearance of the General Government on the scene.

1835-'6.

In 1835 the President of the United States ordered surveys to be made "for a ship canal to connect the waters of Lake Erie and Lake Ontario," and detailed Capt. W. G. Williams of the U. S. Topographical Engineers for the work. In 1836 Capt. Williams reported upon five different routes, varying in their lengths from 7¾ miles (from Schlosser's to Lewiston) to 32 miles (from Tonawanda, *via* Lockport, to Eighteen Mile Creek at Olcott).

The locks for his canal were to be 200 feet long, 50 feet wide and 10 feet deep. The estimated cost of the canals as planned by Capt. Williams varied from $2,568,899 to $5,041,725.

1837.

Under date of February 14, 1837, the House Committee on Roads and Canals made a favorable report urging the military and commercial needs for the canal as outlined by Capt. Williams.

1853.

In 1853 a State Commission made surveys for a canal around the Falls of Niagara of the dimensions of the St. Mary's canal, then building, for the passage of the largest side-wheel steamers then navigating the Western Lakes. The locks for the canal estimated for were to be 300 feet long, 70 feet wide and 14 feet deep.

The estimated cost varied from $10,290,471 to $13,169,570, according to the route considered.

1863.

In 1863 President Lincoln appointed an engineer, Mr. C. B. Stuart, to make a report on proposed canal improvements designed to pass gunboats from tidewater to the Lakes. The canal as reported and estimated for by him had locks 275 feet long, 45 feet wide, and 12 feet deep, the same in width and depth as the barge canal locks now under construction. Various routes were surveyed and the estimated cost for the shortest one was from $6,007,011 for single locks to $7,680,555 for double locks.

1867.

In 1867, in compliance with a joint resolution of the 40th Congress, Lieut.-Col. C. E. Blunt of the U. S. Corps of Engineers made surveys and estimates for a canal 14 feet deep and locks 275 feet long and 36 feet wide by various routes from the upper Niagara to the lower Niagara and points on Lake Ontario. His estimates of cost varied from $11,032,000 to $13,993,638.

1888.

In accordance with the provisions of the River and Harbor Act of 1888, Capt. Carl F. Palfrey of the Corps of Engineers made a revision of the plans of 1867 and for a larger canal. He considered only the routes by way of Wilson and Olcott to be suited to conditions then existing. His estimates were for a canal with locks 400 feet long, 80 feet wide and 20½ feet depth on mitre sills and his esti-

mates varied from $23,617,900 for the Olcott line to $29,347,900 for the Wilson line.

1889.

In 1889 Representative Sereno E. Payne introduced a bill in Congress providing for a commission to select one of these lines and appropriating $1,000,000 for construction upon it. No action was had upon this bill.

1892-'6.

Congressional reports were made in 1892 and 1896 on the subject of a canal about Niagara Falls but nothing came therefrom.

The above historical data refer mainly to a canal about Niagara Falls. Other action relative to the general canal routes through the State has been taken by the United States.

1863.

During 1863 the State Engineer of New York made studies and estimates for a series of enlarged locks alongside the existing locks so as to pass gunboats from tidewater to Lakes Erie and Ontario. The enlargement contemplated locks 225 feet long, 26 feet wide and 7 feet deep. The estimated cost of this enlargement from the Hudson river to Lake Ontario was $10,350,088 and from the Hudson river to Lake Erie was $11,902,888.

1874.

Under date of June 23, 1874, Congress called for a report and estimate for the enlargement of the locks of the New York canals to the dimensions last mentioned, *i. e.*, 225 feet long, 26 feet wide and 7 feet deep, and the deepening of the canal prism to eight feet. This report was made by Major John M. Wilson of the Corps of Engineers, U. S. Army.

Major Wilson's estimate of the cost of lock enlargement leaving the prism at seven feet depth, from the Hudson to

Lake Erie, was $6,676,231, or with deepening the prism to eight feet included, it was $8,173,596.

Major Wilson also submitted an estimate for a canal from the Hudson to Lake Ontario at Oswego, with locks 185 feet long, 29 feet wide and 9 feet deep. The estimated cost of this work was $25,213,857.

1896.

As stated in another part of this paper the writer submitted in 1896 a report required by Congress on the subject of enlarging the locks of the Erie canal for the passage of modern torpedo boats and vessels of war of similar dimensions.

Everything subsequent to this in which officials of the General Government had a hand is given in the previous portion of this article.

THE FUNCTION OF
NEW YORK'S BARGE CANALS
IN CONTROLLING FREIGHT RATES

By JOHN D. KERNAN,[1]

President of the New York State Commerce Conventions of 1899, 1900, and 1901; second vice-president the New York State Waterways Association, etc.

In that magnificent memorial to the Legislature which begot the canal statute of 1816, Governor Clinton wrote these words:

"Granting, however, that the rivals of New York will command a considerable portion of the western trade, yet it must be obvious from these united considerations, that she will engross more than sufficient to render her the greatest commercial city in the world. . . . Great manufacturing establishments will spring up; agriculture will establish its granaries, and commerce its warehouses in all directions. Villages, towns and cities will line the banks of the canal and the shores of the Hudson from Erie to New York. The wilderness and the solitary places will become glad and the desert will rejoice and blossom as the rose."

1. The Hon. John D. Kernan of Utica has long been prominent among the more efficient and practical advocates of canal improvement in New York State. In preceding pages (12-33) of this volume has been noted his participation in the State Commerce conventions of 1899, 1900, and 1901, of each of which he was president. In Senator Henry W. Hill's "Historical Review of Waterways and Canal Construction in New York State" (XII, Pubs. Buffalo Historical Society), frequent mention is made of Mr. Kernan's services in behalf of the canals, especially in the referendum campaign of 1903. The paper here printed is a revision, slightly amended and extended, of an address made by Mr. Kernan at Troy, shortly before the election of 1903. It is an excellent example of the abler kind of arguments made in that campaign by friends of New York canals, and the Buffalo Historical Society takes pleasure in including it in the present collection.

This prophecy written in the wilderness that lay west of Albany long since came true, and none can fairly deny that the Erie canal completed in 1825 and enlarged between 1836 and 1862, contributed more than anything else to make New York the first State in the Union in wealth and population. Its monuments are, the second great port of the world at New York, the fifth at Buffalo, at the foot of the Great Lakes, upon which a tonnage floats equal to 40 per cent. of the railway tonnage of the United States, a continuous line of prosperous cities, towns and villages where at least 70 per cent. of our population live, pay more than that proportion of our State taxes, and consume the product of our farms; $360,000,000 earned by boatmen in freight, fortunes made in handling its commerce; the lowest freight rates in the world forced upon the New York Central and other State railroads by canal competition; and, according to the latest reports of State Comptroller Miller, $3,398,004.81 toll money to the credit of the canals on September 30, 1902, over and above the money expended upon all State canals since 1817, including the expenditures of twenty years of no tolls and the $7,000,000 largely wasted out of the $9,000,000 voted by the people for canal improvement, excluding interest which no one except canal opponents ever thinks of charging against any class of public expenditures, because public use is the equivalent of interest, especially upon highways of all kinds.

Again, so long as the Erie canal was fit, not only did the cities and their industries grow, but farm values increased until they averaged the highest in the United States. The Great Lakes on the west, the ocean near by at Troy on the east, and the lay of the land and water courses between are the simple elements that enabled our energetic and far-sighted ancestors to establish the commercial supremacy of New York. To get a canal or a railroad elsewhere between the lakes and the ocean through the Appalachian mountain range extending from Alabama to Maine, down to such a grade as we have had provided by nature, would bankrupt Croesus and all his followers since his day. It would seem

as though continued and up-to-date use of our natural advantages would just as surely sow the seeds of continued supremacy in the future.

Those who favor a barge canal must not be misled by the facts of our past history, however, into concluding without further investigation that because our canals were once of value they will hereafter be of equal or greater value. A flail was once a good thing, but there are better ways of threshing now! Barge canal advocates must fairly answer those who say that the days of canals is passed, and that of railroads and government ship canals has come. If they do not the people will vote against further expenditures of public money upon canals, especially in view of the danger, incident to all such public undertakings, that there will be some waste and theft in its spending, although my firm belief in popular government and in the people when aroused leads me to think that the danger is just now being greatly exaggerated for a purpose not patriotic.

For thirty years past we have virtually abandoned our canals, so far as improvement is concerned, with the result that in 1898 Governor Black called attention to the fact that our commerce was falling away and the State was losing its position of commercial supremacy. Instead of having 80 per cent. of the imports and 65 per cent. of exports, it was found that all but 62 per cent. of imports and 37 per cent. of exports had already gone to our rivals. He appointed a commission to find out why. This commission reported a very alarming loss in New York commerce, owing to canal deterioration and railroad discrimination against the State, and argued forcibly that adequate improvement of the Erie canal to nine feet in depth, with proper terminal facilities, protected by the State from railroad control, would regain all that the State had lost, increase canal capacity four fold and decrease the cost of moving freight to 88-100 of a mill per ton, or 44 cents per ton from Buffalo to New York. The legislature did nothing. In 1899 Governor Roosevelt appointed a canal committee of the ablest men he could find to consider the canal question alone. After investigating all

of its phases, this committee recommended that the Erie canal be enlarged to 1000-ton barge size as the maximum carrying capacity at the minimum of cost. This means that a vessel has not yet been designed for canal navigation that can carry as cheaply in proportion to the amount necessary to build and operate it as a boat of 1000 tons capacity. Ocean vessels cost to build about $71,000 per 1000 tons of carrying capacity and proportionately to operate; 1000-ton barges, $7,300, and proportionately to operate. I went up the lakes to Marquette a year ago on a new 7000-ton freighter. The captain told me that the boat had cost $225,000, and had a crew of twenty-five men to pay and feed; that to pay expenses and a fair profit he had to make thirteen miles per hour the season through. The ship canal commission report says that it will take that vessel sixty-four hours to make the passage of 477 miles from Buffalo to New York City. That is less than seven and one-half miles per hour, and will make the ship canal useless to the captain in his business, if what he told me is true. The Suez canal is largely open inland water, and yet the average speed of vessels is less than six miles per hour. The traffic on the Suez is less than eight million tons per year, or about one-quarter of that passing the Sault Ste. Marie's locks and largely awaiting a suitable waterway into and through New York State. Hence for inland water the 1000-ton barge is the cheapest carrying agent that the wit of man has thus far devised. For this reason it has been adopted as the standard in Germany. Nothing less than a 1000-ton barge canal, in the judgment of the committee, is worth while to attempt, in order to again make our canals railroad rate regulators, or to regain and hold the lost commercial supremacy of the State. Such a canal the committee reports will reduce canal transportation cost to 52.100 of a mill per ton mile, or to twenty-five cents per ton from Buffalo to New York. No railroad economies yet permit their work to be done at a less average cost than four mills per ton, or about eight times the 1000-ton barge rate. The Legislature again cautiously did nothing except to direct the State En-

gineer and Surveyor to prepare complete surveys, plans and estimates of the cost of enlarging the Erie canal to ten feet, the Oswego canal to nine feet, and the Champlain canal to seven feet, of draft. The State Engineer and Surveyor took a year to do this work and had the assistance of the ablest engineers in the country. His report is the basis of the $101,000,000 referendum to be voted upon by the people this fall. No other State work has ever been preceded by such careful investigation, or by such a complete and detailed estimate of cost. Under the act of June 4, 1897, the President of the United States appointed a ship canal commission which reported to Congress on June 30, 1897, that a twenty-one foot ship canal, permitting navigation by lake vessels of nineteen-foot draft, could be built by the Oswego or Champlain routes for about $310,000,000. The report says, that before this deep waterway can be opened for business our State canals must be abandoned; there will be no water left for them. Governor Black's commission says, wisely, I think, that "The construction of a ship canal across the State should not be permitted to interfere with existing State canals." To permit a government ship canal to thus destroy our State canals would be doing as the dog did when he dropped his bone in crossing a stream to dive for the shadow in the water. An advocate of the government ship canal says in a communication to the Utica *Daily Press* that agitation for a ship canal began in the '70s; that conventions for it were held in the early '90s; that President Cleveland appointed a commission to investigate in 1885; that Congress provided for a survey in 1897, and the same was submitted in 1900. We might add that Congress has done nothing about it since! An old canal boat on our present dilapidated canal can make better time than that! If it has taken thirty-three years to get as far as a survey for a ship canal, it baffles the imagination to conceive of centuries enough to build it; meanwhile our competitors are despoiling us of our long conceded commercial supremacy. Had we not better call a halt on that by improving our own canals and letting the ship canal come when it

may? All the ports from Maine to Mississippi are competitors of New York State, for east and west business, and we will get a ship canal when they and their railroads and tributaries, territory and customers are ready to commit commercial hari-kari and turn their business over to New York State. Shall we wait for our competitors to build a ship canal more for our benefit than their own? It is not necessary to feel inhospitable to a government ship canal, but it is very necessary that we hold on to what we have got and do not permit a dream to lull us into such fancied security in our position that we make no effort on our part to improve our own State waterways. Do not forget either that New York pays about one-sixth of all national expenditures. A ship canal will be very expensive to us in itself, and more so in the reciprocation of similar favors that it will involve to other states.

No citizen who now favors canal abandonment, or a ship canal, or a nine foot canal, or a State railroad in the canal bed; or one who deems statutory regulation of railroad rates sufficient to protect the people, should do himself and the State the injustice of voting upon this important question without reading those reports to which I have called attention and also the reports of the Interstate Commerce Commission, stating, year after year, that all the legislation of fifty years past designed to regulate and control railroad rates has utterly failed, and that railroads in spite of them charge and discriminate as they like unless restrained by water competition. Whatever a man's present views are they cannot fail to be either greatly confirmed, modified, or totally changed by the flood of facts and information contained in these official reports. Governor Odell stated the question before the people at Buffalo on September 11 with great clearness, with commendable fidelity to his duty as governor; his warning of the momentous consequences involved in the decision of the question should arrest attention and compel men to weigh well before voting what rejection of the barge canal referendum means.

We have had too much reliance for thirty years past upon

New York railroads as the knight-errants of our commercial goddess. Whereas they have been simply and quite properly occupied in taking care of their stockholders regardless of the goddess. To this end they have for twenty years past avoided rate wars and money loss by assisting in the diversion of our canal traffic to rival Atlantic ports, by means of Chicago and Buffalo differentials in rates in favor of those ports for the same or greater service, and through control acquired and exercised over canal terminal storage and elevator charges. The manipulation of these devices has skilfully diverted canal traffic only, to rival ports, and hence New York railroads, having lost nothing themselves, shed no tears over the situation, and share not our lamentations. Again, no port or State can longer rely upon the old fashioned idea that its railroads must or will fight its battles. Owing to combination, to amicable division of traffic, to large holdings in each other's stock, and to the extension of their lines and connections to different ports, the trunk lines have ceased to be the special champions of, or dependent upon, any particular port or ports. In this connection a recent report of the Interstate Commerce Commission says:

"It is a matter of common knowledge that vast schemes of railroad control are now in process of consummation, and that the competition of rival lines is to be restrained by these combinations. While this movement has not yet found full expression in the actual consolidation of railroad corporations, enough has transpired to disclose a unification of financial interests which will dominate the management and harmonize the operation of lines heretofore independent and competitive. This is today the most noticeable and important feature of the railway situation. If the plans already foreshadowed are brought to effective results, and others of similar scope are carried to execution there will be a vast centralization of railroad properties, with all the power involved in such far-reaching combinations, yet uncontrolled by any public authority which can be efficiently exerted. The restraints of competition upon excessive and unjust rates will in this way be avoided, and whatever evils may result will be remediless under existing laws."

The remedy to be adopted by the people in view of the situation so clearly pointed out, the sole remedy, the abund-

ant and all-sufficient remedy according to the judgment of very many thorough investigators of the question, was well and briefly expressed by the Interstate Commerce Commission itself in the export rate case in the following language:

"The great supremacy of New York in the past has been measurably due to its canals. If it would hold that supremacy in the future, it must give attention to that same waterway. If the canal was to be restored today to the same position in the carrying trade that it has occupied within the twenty years past, the commerce of the port of New York could not suffer."

Railroads, canals and highways form a trinity and together cover transportation and travel in every phase. Each can handle some kind of traffic more advantageously than the others, and hence all three in their highest state of efficiency are found in the end to be the condition that is best for the people and for each of the three. Railroads for passengers and high-class freight; highways for driving and for the farmer; canals for coarse raw material like sand, stone, lumber, coal and ores, although canal improvement abroad has caused package freight to increase to a greater extent than upon railroads. For instance, a man at my home at Forestport last fall shipped 400 boat loads of sand to manufacturers along the Erie canal. He got seventy cents a yard for it delivered. A boat carried eighty yards only because we have let the Black River canal fill until there is but three feet ten inches of draught allowable. The sand brought $56. The boatman got one-half and the shovelers the rest except $5 per load which the shipper got. Without the canal that sand could not have been moved at all at such a price by railroad or highway. The transaction benefited every one and ultimately the railroads more than any one else, because that cheap sand helped the manufacturer to expand his business and produce high-class goods upon which the railroads got high-class rates for bringing them to you and me. Any business-man can think of hundreds of such instances, showing how waterways serve to supplement railroads and highways.

In one respect there is a radical difference between two of the three and the third. Highways and canals are free for public use, and hence cannot be entirely monopolized; no matter how far this may be attempted, or carried, a man can still drive his own horse and wagon on a highway, and paddle his own canoe, or pike-pole, or mule-haul, or steam-drive his boat upon a free waterway; railroads are private concerns in business for profit. Their opportunities and position give them a monopolistic character, and hence unless regulated and controlled by public authority or competition, they may greatly oppress and injure the public to whose use they are essential, and for whose use their continual improvement is as necessary as either canal or highway development; perhaps more so.

To protect the people against the tendency of railroads to charge more than the cost of service, or a fair profit, has been the object of an immense amount of legislation for fifty years past. The latest attempt in that line has been railroad commissions. Legislation and commissions, however, have failed, utterly and ignobly failed; railroad combination has beaten them and competition out. You cannot regulate complicated railroad rates in that way or by statute alone. There has to be something else. Older nations than we have gone through all of our experience, and have found this something else to be canals and internal highways owned and controlled by the State and kept in the same condition of modern improvement that railroads are. I am becoming more and more satisfied that the utmost perfection to be attained under the Interstate Commerce law and State statutes will fail to give full relief, remedy and satisfaction unless supplemented by canals and waterways.

These are found to operate effectively as rate regulators, particularly on coarse freights, because water transportation is thus far the cheapest known. Ocean rates average about one-half mill, lake rates three-quarters of a mill, canal rates two mills, even on our neglected Erie, and New York Central rates on a modern railroad at least six mills per ton mile, or twelve times the ocean rate. For this reason rail-

roads bring their grain 865 miles by lake to Buffalo from Chicago instead of hauling 440 miles by rail. The Michigan ores for Pittsburg furnaces come by lake instead of rail for the same reason. Coal is carried west by lake as low as 25 cents a ton for 1000 miles for a like reason; from the mines to tidewater, a distance of less than 400 miles, railroads charge about $1.50 per ton, or six times a paying rate by water for double the distance.

Homely illustrations of this fact within the observation of every man are, however, even more convincing than statistics. A man with a pike-pole can move a boat loaded with 8000 bushels of grain a certain distance in an hour for a total cost of not over a dollar probably; with a pair of mules much further, and with steam further still at small additional cost. These 8000 bushels moved the same distance by highway would require many teams, wagons and men, and by railway, a roadbed, rails, cars, locomotives and skilled, high-priced employes, and therefore costs very much more. From the pack basket by land and the canoe by water, up to the Mogul engine and its forty loaded cars and the 20,000 ton steamer, this great difference in favor of low transportation cost by water always has existed and always will exist. This fact lies at the foundation of our belief that our canals, deepened and widened with proper locks and terminals for the use of boats up to the practical, profitable limit of 1000 ton barge capacity by giving us the cheapest and most advantageous inland water route in the world, will benefit every citizen of the State, no matter where he lives, whose business interests will be promoted by either local or general prosperity throughout the State, or who has any use for transportation in what he buys and sells.

The competitive effect of water competition upon rail rates is seen in the following class rates in both directions on two great railroads:

New York and Pittsburg—1-45, 2-39, 3-30, 4-21, 5-18, 6-15.

New York and Buffalo—1-39, 2-33, 3-28, 4-19, 5-16, 6-13.

This means that because of canal competition we in New York State pay an average of nearly five cents per 100 pounds less freight between New York and Buffalo and intermediate stations than the people of Pennsylvania pay the Pennsylvania road for like service. The same comparison of rates carried out at Baltimore and Newport News proves that our New York railroad rates average eleven cents per 100 pounds less; at Norfolk nineteen cents per 100 pounds less. It will be seen that Senator Depew was right when he said that the Erie canal once forced upon the New York Central the lowest freight rates in the world, because of canal competition. When the canal was comparatively fit the difference was far greater than it is now. I have never seen the statement of the Philadelphia *Record* contradicted that the loss of her canals cost Pennsylvania $63,000,000 per year in freight discriminations against grain, oil and flour alone. Because New York has not yet followed the bad example set by Pennsylvania of turning her canals over to the railroads to be destroyed, she can buy all her coal from Pennsylvania and yet far outrank her in wealth.

Since the days of Clinton the value of the canal as a rate regulator in their day, has been urged by our statesmen of all parties, such as Seymour, Tilden, Evarts, Conkling, Fish and Hewitt. No statesman ever more truthfully held up to public view the value of the Erie canal than Senator Windom in presenting a report of a committee years ago to the United States Senate, when he said:

"The wide sweep of competitive influence exerted by the Erie canal is not generally understood or appreciated. You would doubtless be surprised, Mr. President, if I told you that the 'little ditch' which runs through your State holds in check and regulates nearly every leading railroad east of the Mississippi river, and that it exerts a marked influence on the cost of transportation over all the country, extending from the interior of the Gulf States to the St. Lawrence river, and from the great plains of the eastern foothills of the Rocky Mountains to the Atlantic ocean. And yet such is the fact."

I might occupy your time for hours with citations to the same effect from reports of State railroad commissions, the Interstate Commerce Commission, and committees, such as

the Hepburn committee and Governor Roosevelt's committee on canals. We find our most convincing proof, however, of the now nearly lost regulating value of the Erie canal in the utterances of railroad managers and experts usually under oath. They are all forced to admit as stated by Albert Fink, to wit: "The Erie canal regulates the freight rates on all the railroads east of the Mississippi river, not only on the roads whose tracks run parallel with the canal, but upon those which run in an opposite direction." Mr. Blanchard said before the Hepburn committee: "The State holds within its grasp the greatest controller of freight rates within its borders, to wit, the canal. There is not a town that is not affected more or less by the canals in this whole State, from the extreme northeast to the extreme southwest corner of it, by the canal policy and the canal rates of freight in this State." He illustrated this by pointing out how rates on the Erie railroad were lowered by Erie canal influences.

Senator Depew summed the matter up in his felicitous way in a speech that he made at Elmira as follows:

"There is another great question in which we as owner are all interested, and that is the State canals. I am in favor of canals. There is an impression that from official and business associations I ought to be opposed to the canals, and that I am; but that is a very narrow view of the situation. The canals compete with the roads with which I am connected at every point. That is true. The canals compel very low rates of transportation, lower than on any other railroad in the world. This is true. But the canals in their connection with the Great Lakes, these inland seas of our country, compel the commerce which floats upon these seas to find the port of Buffalo in the hope of getting through the canal to the seaboard. The surplus which the canal cannot carry comes to the railroads, and the prosperity which the canal and the lakes give to the State of New York in the promotion of their business comes in turn to the railway."

Mr. Daniels of the New York Central has been busy making and circulating able speeches full of so-called reasons why the canal should be abandoned. I think it would be well for us to print and circulate one of them as a canal campaign document if he will add to it as a postscript

that Senator Depew, his former president, once said that when fit the Erie canal competition forced upon the New York Central the lowest railroad rates in the world.

The last thought suggested by the senator is full of food for reflection. When he spoke in 1891 New York railroads and canals were still really coöperative and hence our commercial supremacy then. High grade freight and finished articles naturally sought railroad service. Crude materials such as lumber, clay, stone, sand, ores and coal could be more cheaply and usually with speed enough carried by water and when worked up needed railroad service for delivery to customers. Thus the railroads and canals played into each other's hands; each was prosperous when competing side by side because together they covered the whole field of transportation and attracted from competing routes and ports every variety of commodity seeking markets. Why, since 1891, have New York railroads repudiated the senator's position? Because they have ceased to be competitors with railroads to other ports. They are in combination with the other trunk lines and now have a common interest with them in desiring to kill the Erie canal. Were it not for the canal the combination of the trunk lines could get all traffic east of Chicago, apportionate it among the different lines and ports and fix rates. In 1891, the New York roads had the use for the canal pointed out by Senator Depew, but since the combination which they have joined can control all traffic east of Chicago, it has no use whatever for canals, especially a barge canal, and hence seeks their destruction. The rapid progress of railroad combination makes an improved Erie canal more essential than ever for the protection of our commerce as a regulator of rates, and therefore the people will not only retain it but will improve it so that it may be as effective as possible in this direction. Governor Odell well said at Buffalo the other day that not to improve it as proposed is to abandon it; he urged the people to consider well the consequences before voting to adopt that course. The State Engineer and Surveyor reports that within from five to nine years all Erie

canal structures must be rebuilt in order to keep the canal where it is; the people will vote for no such expenditure, and hence Governor Odell's warning.

Again, railroads need canals beside them not only to regulate their rates, but to increase their business and promote their prosperity. No sane man would wish otherwise because it is best for the State, the people and their business that railroads should prosper. Long experience in this and other countries warrants the statement that the ideal transportation situation in a country for the people and for both of them is for canals and railroads to compete side by side. We know this is true in New York State because while the New York Central has regularly paid dividends, the Erie railroad has been bankrupt many of the years since the State gave it $3,000,000 to stifle the southern tier complaint about the Erie canal expenditure. Strange as it seems, a railroad cannot get as much business or profit out of a monopoly of a situation as it can where competing to get a share of the greater volume of business that a cheap water route beside it attracts. Such is, also, not only our own, but foreign experience. In 100 years past France has spent $750,000,000 on canals, $600,000,000 on railroads, and $650,000,000 on highways. She treats them as part of a transportation whole. Although having 196 improved waterways 7000 miles in length in an area less than Texas, she still wants more, and hence appropriated $132,000,000 last year to build them. The Northern Railroad Company, competing in its territory with 43 per cent. of the boating capacity of France, was the only one in a recent year that paid dividends. Those who fear that the 1000-ton barge canal will hurt railroads should note this fact. France in return for the control she assumes over railroads guarantees the payment of interest on their securities. If water competition did not benefit railroads as a matter of long experience would France in view of this guaranty be building canals at such a rate? What she has learned in this regard is stated in a report recently made by a committee to the French Senate in the following language:

"It is conceded that waterways and railways are destined not to supplant, but to supplement each other. Between the two there is a natural division of traffic. To the railroad goes the least burdensome traffic, which demands regularity and quick transit; to the waterways gravitate the heavy freights of small value, which can only be transported where freights are low."

Waterways, by increasing traffic, are rather the auxiliaries than the competitors of railroads. In procuring for manufacture cheap transportation for coal and raw materials, they create freights whose subsequent transportation gives profit to the railroads." Between 1872 and 1897 the water traffic of France increased 140 per cent. as against a railroad increase of 75 per cent.

Germany gets over one-half of her gross income and over $50,000,000 a year profit from 18,000 miles of railroad owned by the state out of about 20,000 miles in all, and yet she maintains over 9000 miles of competitive canals and navigable rivers, and is preparing plans to spend $100,000,000 on a new canal between the Rhine and the Elbe.

Her reasons for her treatment of the transportation question are reported by our consul general, Mason, as follows:

"German statesmanship was among the first to foresee that the time would come when, railways having reached their maximum extension and efficiency, there would remain a vast surplus of coarse, raw materials—coal, ores, timber, stone and crude materials—which could be economically carried long distances only by water transportation, and that in a fully developed national system the proper role of railroads would be to carry passengers, and the higher class of merchandise manufactured from the raw staples which the waterways had brought to their doors."

On September 10th the New York *Times* published a communication from its Berlin correspondent which says that United States Congressman Burton, chairman of the River and Harbor Committee of the House, has returned there after his inquiry into the river and harbor improvements in eastern and southeastern Europe. Speaking of his investigations, which were begun early in June, Mr. Burton said:

"We found illustrations throwing light upon almost every proposition in the river and harbor works of the United States. Everywhere in Europe there is a disposition to make increased use of the inland waterways, whether rivers or canals. The value of this means of transportation is coming to be realized more and more. In France and Germany and portions of Russia the quantity of freight carried by water is increasing more than that carried by rail. There is a strong movement for the improvement of the inland waterways, and there is a growing opinion also, though not as potent or universal, in favor of tolls on the waterways which are improved."

Some thousands of new buildings in Manchester, Eng., with its railroads rapidly enlarging their terminal facilities at that point, tell us how wise it was for Manchester to spend $40,000,000 recently to build a short canal to the sea. The water competition that she thus forced upon her railroads cut down their rates and yet benefited them through the increased business brought to Manchester and to them thereby.

Belgium and Russia, owning railroads themselves, have spent a mint of money on their canals, which show a constant increase in water traffic, especially in package freight. Canada with her fourteen-foot Welland canal, increasing its tonnage year by year, has spent and proposes to spend, in her new twenty-foot canal, 430 miles in length from Lake Huron to the St. Lawrence, an amount of money that, considering her resources, is far beyond anything that New York State thinks of spending upon our canals. In the face of this race that is going on among our competitors everywhere to secure for their own benefit the low cost of water transportation, we are urged by the railroads and their allies to throw away our opportunity through canal enlargement to grasp the east and west commerce of the future and to get and keep in our possession for the benefit of our merchants, manufacturers, farmers and laborers by far the most important and extensive low water rate transportation route in the world. I call attention to these foreign countries because they are our competitors in manufacturing, and we must meet every device and policy of theirs tending to cheapen production and transportation.

We are engaged in commercial strife for the world trade with Europe and it will become far more intense before we reach the top. In that contest nothing will be a more important factor than our manufacturer's cost for transportation. The 196 improved canals and waterways, 7000 miles long, within the limited area where the industries of 35,000,000 people in France are carried on, have potentially assisted her thus far to lead as in the volume of her export and import trade with the exception of one year. As her competitor we certainly cannot neglect to improve every available means of cheapening transportation cost for our manufacturers, especially when we remember that the industries of 35,000,000 of our people would cover an area probably ten times greater than France and hence must have equally cheap transportation for far greater distances. This same situation exists as to Germany, England, Belgium and all foreign countries. They have far more improved waterways now than we have and are constantly increasing them at great cost. This fact seems to me to be a very strong argument in favor of the barge canal and of all similar public undertakings. Each of them is a wise step towards cheapening transportation cost and thus strengthening our competitive position abroad.

In the New York *Herald* of recent date the greatly congested condition of the trunk lines is noted; it is called car shortage. Does not car shortage at present simply mean lack of terminal facilities for loading and unloading cars quickly? A car that makes 15 miles an hour on the track often does not move a mile in three days at terminals. Is not this fact a most urgent appeal for the improvement and enlargement of internal waterways to relieve and supplement railroads by handling raw materials and coarse freights at congested centers like New York, Buffalo, Pittsburg, Chicago, and all points where manufacturing concentrates, and must it not in the future, to the advantage of our State, concentrate where both rail and water facilities are accessible? Is it not now plain that railroad terminal facilities cannot keep pace with the

growth of the country so as to handle all traffic as promptly as required by business necessities? Was not the steel industry almost paralyzed at Pittsburg last winter through failure of the railroads to promptly move raw materials in and finished product out? The proposed spending of $60,000,000 by the Pennsylvania in its tunnels would seem to indicate that the limit of enlarged terminal facilities in New York City above ground had nearly been reached. Since the New York Central now needs at least double its present terminal capacity, what relief can it give us twenty years from now within reasonable capital expenditure, assuming that our population doubles and our export and import trade, now 50 per cent. of England's, becomes equal to, or greater than hers? Is not so-called car shortage traced to its real source a fact that calls for the barge canal enlargement as a wise and provident provision in our State for its future transportation requirements, with benefit not only to the people but to the railroads? I doubt not that in time it will be followed by a ship canal on the Ontario lake route and by lateral canals covering the State in all directions as in England where the Thames is the trunk line for six connecting canals. Such a public policy begun with our barge canal and steadily pursued thereafter will in every aspect of the question be of vast benefit to both railroads and the people.

My practical knowledge of how much canal the farmer needs centers about my farm at Forestport. All the flour we use and much of the grain we feed to our stock comes from the West, and we want to get it as cheap as we can. Our canal rates are now just one-half railroad rates from nearby canal points, and that suits us well, and it will suit us better when the barge canal makes rates cheaper still, and from a greater distance. Do not four-fifths of the farmers in New York State eat western flour, and feed western grain, and if so, do they not want the cheapest way to get it here? We find at Forestport that we can put our land to better use than raising grain for market, and we have no desire to close up canals, put up railroad rates, and

go back into that business in competition with cheap fertile western land. It is not the canal that brings eggs, butter, cheese, beef, mutton, pork, lard, vinegar and fruit to compete with our farmers; that is what the railroads do and will do canal or no canal. We can send potatoes to New York City from Forestport by boat for six or seven cents per bushel, with winter storage added until they are sold. The railroads ask thirteen cents a bushel with no storage, and if we had no canal we fear it would charge more, and leave very little of the market price for us, unless it forced the consumer, who is generally as poor as ourselves, to pay a good deal more. We get our salt from Syracuse, 75 miles by canal, for ten cents per barrel; weight, 280 pounds, three cents per 100 pounds, and recently by rail for the same. Railroad rates are reasonable when the stuff is something a boat can carry and deliver; when not, they are two or three times what the boat charges, or even what they themselves in competition with the boat charge on similar articles. Upon a barge canal with suitable terminal facilities many more articles can be carried, and the field of competition greatly extended. This at least will not hurt either producer or consumer. Every farmer in the State gets some of this benefit from the canal. Those near the canal get the most benefit and pay the most taxes, but all get some because, as I have before stated, even Erie railroad rates are affected by canal competition, or at least were when the canal was comparatively fit, and will be again when it is properly improved and managed. No matter where a farmer lives his rate to and from New York is on some part of the route lowered by canal competition; a barge canal will lower it much more.

I certainly can see no objection from any standpoint to counties, cities and towns along canal lines, that now pay about 90 per cent. of our State taxes, growing so rich and populous through canal enlargement that they will pay even a larger percentage, especially for good roads, and in addition furnish ready markets for all that our farms, gardens and forests can produce. If it is business to manufacture

where it is cheapest, why is it visionary to believe that the $50,000,000 steel plant now building at Buffalo will be duplicated at many points along a barge canal? With such a route from the ore beds to the ocean, no other route could profitably compete with it in cheaply transporting the ore and its finished product to New York City, there to be used in shipbuilding, or to be distributed over the world. Andrew Carnegie wrote an open letter lately, saying that if he owned the Erie canal he would make it a barge canal at once, and put his steel plant upon it. Certainly he knows what he is talking about when it comes to the steel and iron business. Increase in manufacturing in this or any other direction cannot but help farmers everywhere in the State.

We find at Forestport that the canal helps us to get our crops and products to market at low rates by either water or rail, and also helps us to get back our necessaries at similar rates; and if a poor, dilapidated, broken-down canal does that we cannot see why a modern, up-to-date canal will not give us lower rates still, increase the number and demand of our city customers, and thus add value to our land and labor.

Our fifteen senators say that instead of building a barge canal it is better to build a State railroad. All of our competitors approve of this idea.

By the by, what would become of a State railroad built in the bed of the Erie canal, as these senators suggest? Within ten years the railroad combination would own it, that's what would become of it—to the delight of canal opponents, no doubt. It would have no friendly connections east or west; when the New York Central got to Buffalo it had to buy railroads clear through to the Pacific coast to protect itself. The Erie railroad is looking for alliance of the same kind to put it on its feet. You can read about it every day in the newspapers. Can the State do that? Would not such a bottled-up State railroad be at the mercy of the railroad combination that either owns or controls through agreement all the elevators on shore or afloat at New York and Buffalo? The extortionate elevator charges

which the fifteen senators pretend hurt them so have been imposed by the railroads ever since the date when they formed the elevator combination by taking in the floating elevators, as testified to by George R. Blanchard, chairman of the Joint Traffic Association, before the Interstate Commerce Commission. A barge canal with suitable terminals and elevators, if necessary, as recommended by Governor Black's commission, will very soon end railroad elevator extortion at New York and Buffalo. No legislation ever has or will. There is a plain statute against it now, but no respect is paid to it. A State railroad would ultimately only increase it. No, gentlemen, the elevator combination is not responsible, as some seem to believe, for the canal enlargement agitation. Any one who cares to know the truth will find upon inquiry that it has not dared to peep even during this canal agitation, because its railroad owners are unwisely opposed to the beneficent scheme. The railroads cannot turn their elevator combine loose as a canal opponent; that would spoil the game they are playing, but they can keep and have kept them mum.

The fifteen senators need not fear that our home labor will be hurt. The barge canal will cost $1.20 per year for eighteen years for each $1000 of present assessed value. This will pay the principal and interest of $100,000,000 of bonds, unless this is avoided, as seems likely, by indirect taxation and extending the time of payment to fifty years. This money will be paid to American citizens for honest work done within the State and it will thereafter circulate here among our own people and do them good. Chapter 454 of the laws of 1902 provides that only American citizens can be employed upon public work, and that among laborers preference must be given to citizens of the State. Canal opponents have overlooked this statute. It is a pity that this fear of foreign hordes of cheap labor did not strike the Senate when it legislated so that $100,000,000 could be spent in building the subway and the Pennsylvania Railroad tunnels in New York City, where the hordes land. Labor will not be hurt in having work to do in building the barge

canal; neither will the cheapening of transporting the necessaries of life thereby caused injure it.

It would seem as though a thorough understanding on the part of all the people cannot but lead them to the conclusion that the expenditure needed for a 1000-ton barge canal will in the end be wise and will be repaid to them many times over in the decreased cost of transportation and in the increased commerce, business, manufacturing and demand for farm and garden products that will be promoted thereby throughout the State.

Spring floods in the Hudson, Mohawk and Black river valleys and the recent drouth suggest another thought in connection with the barge canal. Every drop of those floods is valuable and in time will not be wasted.

Why cannot a barge canal become in the future a great reservoir to supply the industries, at least of towns, villages and cities, with water at low cost? The State might thus derive a revenue that would largely and perhaps wholly pay the cost of maintenance. Supply is simply a question of reservoirs in the Adirondacks.

England has shown us how to do it in Egypt. The Assouan dam, a mile and a quarter long, duplicated near our head waters in the North Woods would not only supply the canal, but lift the burden of high water cost from every manufacturing industry between Syracuse and Albany. Why have cities, towns and villages been duplicating at great expense innumerable reservoirs that can largely be purely supplied through filtration so easily and at so much less cost as a single undertaking by the State? Such reservoirs would also be laying the foundation for developing the power, as at Niagara Falls, that disappearing coal and fuel supply will one day make invaluable.

This may be a dream, but I think not. I firmly believe that the day is not far distant when we will not let spring floods run away with water and power that we shall need more and more as the State grows. The barge canal which we now think of for navigation purposes alone will ultimately prove a great blessing as a source of water supply.

NEW YORK STATE CANALS

FROM 1895 TO 1903

A CHRONICLE OF ACHIEVEMENT

By GEORGE H. RAYMOND

Secretary of the Canal Improvement State Committee.

The writer of this article was not identified with canal matters prior to 1895, but it can be said that a subtle struggle had been carried on for years by the railroads of the State against the traffic interests of internal waterways in this State.

The abandonment of the canals leading into the coal regions was one of the first steps of this struggle. The closing of the Chemung and Chenango canals without doubt cost the users of anthracite coal in this country not less than two dollars per ton. After the abandonment of the Chenango, Chemung and Genesee Valley canals, the next step was to so cripple the appropriations for the Erie canal that it would finally be abandoned and then there would be no possible check on rates to or from the seaboard.

The real friends of the canal system of the State had become discouraged at the apathy of the public and appalled by the efforts of anti-canal interests, and only a spark was left of the enthusiasm displayed in the early days of canal building.

By persistent fighting against great discouragement Hon. George Clinton secured, in 1884, an appropriation to begin the lengthening of the locks. His idea was that if

even a little could be done, the future would finally bring about a proper improvement of the canal system.

Later, the fate of the canals hung by the smallest thread in the Constitutional Convention of 1894. The foes of the canal urged on its abandonment. The railroad interests took advantage of the lack of business foresight of the canal people as to what canal abandonment would really mean. Had it not been for the persistent struggle of Hon. Henry W. Hill of Buffalo in the Constitutional Convention of 1894 the fate of the canals of the State would have been sealed then and there. Fortunately for the State, fortunately for the nation, the efforts of Mr. Hill were successful and the Constitution of 1894 declared against canal abandonment.

Hon. Horatio Seymour of Utica was always a staunch friend of the canals, and in 1882 proposed a plan of canal enlargement that after some thirteen years of desultory canal agitation finally became the basis of the canal improvement bill of 1895.

This effort for canal enlargement, as it afterward turned out, was injurious to the cause of canal improvement. The plan of enlargement was years behind the times, but the friends of the canals were timid and felt that anything they could get was of advantage. The estimate of nine million dollars for the enlargement proposed, which would increase the capacity of the canal craft by only some forty per cent., was found to be entirely too low, and the work was never completed. It was fortunate that so small a sum was appropriated and the work stopped where it was. The passage of the bill of 1895, however, did arouse the old canal friends to the importance of the canal once more, and new life was given and suggestions were made for a very much larger canal.

The so-called nine million dollar canal bill was passed in November, 1895. In 1896 the writer proposed a plan of canal enlargement that would have given a capacity of about two and one-half times the size of boats then in use. This plan was to ask the General Government to widen the locks of the Erie canal so that torpedo-boats, torpedo-boat destroyers and light-draft gunboats could be moved from

the coast to the inland lakes. I advanced this project at the time when the Venezuela scare made war seem possible between the United States and England. The plan attracted wide notice at that time on account of the strategic possibilities and the War and Navy departments gave the plan approval. A canvass was made of leading Senators and Representatives, and it would have been possible at that time to have secured Government support; but, as usual, selfish interests stepped in at one point and old fogy business ideas at another point and this plan was laid aside. As it turned out, the agitation which resulted was the means of finally securing a larger and better canal than that proposed by me in 1896.

The elevator interests of Buffalo took the narrow ground that the boats which my plan would make possible would be able to navigate Lake Erie and thence through to New York without breaking bulk and the handling charge would be lost to Buffalo. The canal committee of the Produce Exchange of New York wrestled with the plan for a month and decided that the 8,000-bushel boat was the proper unit, and so their support could not be secured. Thus the two great cities which would be the most benefited and which afterwards so grandly carried the larger project through, made it impossible to get a resolution through the Board of Trade of Buffalo or the commercial bodies of New York in favor of having the canal enlarged two and one-half times.

However, this opposition was destined not to defeat the effort for a much larger canal. I requested Hon. R. B. Mahany of Buffalo to introduce a bill at Washington asking that an estimate of cost of widening the locks should be obtained. This bill was passed and sent to Major (now Colonel) Thomas W. Symons, who had recently been stationed at Buffalo as U. S. Engineer, that he might make necessary estimates. When Mr. Mahany's bill was placed in Major Symons' hands may be said to be the time when the 1000-ton barge canal proposition got its first start.

Major Symons, in making his report in 1897 to the Government along the military lines showing what size was necessary to float torpedo boats, etc., also took the matter

up along commercial lines. His report covered the ground so fully and made such a splendid showing of the commercial possibilities to the State of New York from a large canal that the canal friends took heart, and instead of making apologies in asking for canal support, began to demand its support at the hand of the State.

The winter of 1898 saw the canal friends again lined up for canal improvement. It was then proposed to raise $7,000,000 more to complete the original nine-million dollar improvement. A hearing was held at Albany and the improvement was urged by a committee consisting of Henry W. Hill, George Clinton and Geo. H. Raymond of Buffalo; and Franklin Edson, W. E. Cleary, W. F. McConnell, Capt. Du Puy, Erastus Wiman, and Alfred Romer of New York.

At the same time the railroad interests were working to have canal enlargement defeated or delayed for years by trying to have the canals turned over to the General Government. This fight was waged strongly and bitterly on the part of those seeking to save the canals and those seeking to destroy them. The burden of the fight as has so often been the case was borne by George Clinton and Henry W. Hill of Buffalo.

The bill to turn the canals over to the General Government was defeated and the Senator from New York introducing it in the Senate was retired to private life. The additional seven million dollar bill was also defeated—fortunately so, the friends of the State canals now believe. At the session of 1897-'98, however, a commission was appointed by Governor Black to investigate the canal question and report to the legislature. This commission was composed of Chas. A. Schieren, Alexander R. Smith, Andrew H. Green, C. C. Shayne and Hugh Kelly, all of New York.

The winter of 1898-'99 saw Theodore Roosevelt in the governor's chair. Governor Roosevelt appointed a commission as well to take up the canal question exhaustively. This committee consisted of Gen. F. V. V. Greene, New York; Frank S. Witherbee, Port Henry; Geo. E. Green, Binghamton; Major Thos. W. Symons and John N. Scatcherd of Buffalo. These gentlemen were all strong

friends of canal improvement. They proceeded to their investigations with energy and thoroughness. Hearings were held and at the Buffalo hearing in June, 1899, Alfred Haines, R. R. Hefford, Henry W. Hill, Thomas M. Ryan, L. P. Smith, G. H. Raymond, George D. Gilson, C. H. Keep, W. A. Rogers, G. W. Hall and others, advocated canal improvement.

In June, 1899, the commission appointed by Governor Black also had a hearing at Buffalo, when among the friends of canal improvement who argued at that time in favor of a larger canal, appeared Frank B. Baird, G. H. Raymond, and Capt. J. J. H. Brown.

In the winter of 1899 and 1900 the Black commission and the Roosevelt commission made their reports. The Black commission's report was that the nine-million dollar plan should be completed. This report was not at all satisfactory to the radical canal friends and no move was made on their part to carry out these suggestions.

The Roosevelt commission's report was on very broad lines and offered a solution for canal improvement that was commensurate with the commercial requirements of the State. They recommended a canal to take barges of 1000 tons capacity, and estimated the cost of such a canal at $62,000,000. This report was accepted by the canal's friends, and steps were at once taken to formulate a bill along those lines, to be introduced the following winter. The report of the Roosevelt committee attracted the greatest attention and it is safe to say that no State paper dealing with the canal question was ever more thorough and exhaustive.

The canal question had now come to be a burning one. Those indefatigable workers for the canals, Frank S. Gardner, secretary, and W. F. McConnell, assistant secretary of the New York Board of Trade and Transportation, organized the first State Commerce Convention to be held in Utica, October 10-12, 1899. Delegates from Buffalo were as follows: From the Merchants' Exchange: John Cunneen, J. J. H. Brown, Theodore S. Fassett, Robert R. Hefford, G. D. Gilson, O. A. Crandall; appointed by the Mayor

of Buffalo: George Clinton, Henry W. Hill, G. H. Raymond, M. M. Drake, Christopher Holderman. Other Buffalo delegates were Conrad Diehl, mayor of Buffalo, Richard Humphrey, William Scott, John Voltz, J. P. Sullivan and Dr. J. D. Bonnar. The convention was a remarkable success and paved the way for vigorous and concentrated effort for canal enlargement. Addresses were delivered by John D. Kernan of Utica, Geo. B. Sloan of Oswego, George Clinton, Henry W. Hill, George H. Raymond and Dr. John D. Bonnar of Buffalo; by Erastus Wiman of New York, John P. Truesdell, David McClure, George W. Smith of Herkimer and John I. Platt of Poughkeepsie. The last-named gentleman, at this convention and at all other times, was a bitter opponent of canal improvement, but found himself in a hopeless minority of one at this convention. The efforts of Capt. William C. Clark of Constantia in this convention as well as in many other efforts for canal improvement for fifty years past, are entitled to the greatest credit. Capt. Clark is a canal man in season and out of season and is unwearied in his efforts. Others have become disheartened and dropped out, but he never ceases his unique campaign.

On February 7, 1900, Mr. Kernan called a meeting at New York of a committee appointed at the Utica Convention to take steps to progress the 1000-ton barge canal plan at Albany. The following gentlemen met: Mayor Conrad Diehl, M. M. Drake and G. H. Raymond of Buffalo; J. W. Abbott and Dr. A. H. Bayard of Cornwall; F. S. Oakes of Cattaraugus; E. S. Green, Cohoes; C. A. Wardle, Catskill; S. G. Heacock, Ilion; J. H. Gregory, Kingston; E. B. Downing, Oneida; W. E. Cleary, Frank S. Gardner, Wm. F. McConnell, Gen. F. V. V. Greene, Frank S. Witherbee, New York; A. R. Kissinger, Rome; Francis E. Bacon, Syracuse; E. F. Murray, Troy; H. W. Miller, J. C. Hoxie, Utica; Robert H. Cook, Whitehall; and H. W. Brown, Spencerport. It was voted to approve the Roosevelt commission report and Capt. Marcus M. Drake, George H. Raymond, A. R. Kissinger, C. A. Wardle, W. E. Cleary,

E. F. Murray and H. W. Brown, were created a committee with power to draw the necessary resolutions.

The large sum required for the 1000-ton barge canal at once roused bitter opposition from the canal enemies and all sorts of plans were suggested to placate various sections by trying to put the burden on the canal counties alone.

Various bills were prepared, but so many questions were raised that after the committee, consisting of John D. Kernan, Henry W. Hill, W. F. McConnell and G. H. Raymond had a conference with Governor Roosevelt on February 20, 1900, the bills were dropped for the session. It was, however, decided that the sum of $200,000 should be secured to make accurate surveys for the 1000-ton barge canal as outlined by the Roosevelt committee.

The most determined opposition to this bill was at once encountered. It presently seemed as if canal improvement were temporarily defeated and the bill was thought dead. At the closing days of the session it was decided to make one more effort to pass the bill and W. F. McConnell of New York and G. H. Raymond of Buffalo were asked by their respective cities to assist Henry W. Hill in leading the forlorn hope for the bill. The day before adjournment the bill was crowded through the Senate by the brilliant leadership of Senator Ellsworth of Lockport, assisted by Senator Grady of New York.

The bill was, however, buried in the Rules committee in the Assembly, as the majority of that committee were opposed to canal improvement. Speaker Nixon steadily refused to let the bill come before the House but the pressure put on the bill through Senator Platt became too strong for Speaker Nixon to ignore, and after the clock had been turned back in the Assembly the bill was reported by the Rules committee and passed the House, 96 to 46. Probably no bill was ever more bitterly fought and none was ever of greater importance to the State than that particular survey bill. Too much credit cannot be given to Henry W. Hill of Buffalo for that victory.

The passage of the survey bill again put new life into the friends of the canals. The second Commerce Conven-

tion was called for Syracuse June 6 and 7, 1900. The following were appointed from Buffalo as delegates: George Clinton, Henry W. Hill, Capt. J. J. H. Brown, C. H. Keep, E. W. Eames, Harris Fosbinder, M. M. Drake, Howard Smith, John Laughlin, Frank B. Baird, Major Thos. W. Symons, F. C. M. Lautz, and G. H. Raymond. This convention was even more successful than the one held at Utica and again reflected the untiring efforts of Frank S. Gardner and W. F. McConnell of New York in organizing it.

Addresses were made by John D. Kernan of Utica, Gustav H. Schwab and Abel E. Blackmar of New York, Major Thos. W. Symons, George Clinton and G. H. Raymond of Buffalo, George B. Sloan of Oswego, and Willis H. Tennant of Mayville. The convention bore good fruit.

On June 20, 1900, a sub-committee of the Merchants' Exchange was appointed to take up the work of canal improvement systematically and thoroughly. The committee consisted of Alfred Haines, President of the Exchange; George Clinton, Frank B. Baird, W. A. Rogers, E. L. Anthony, L. P. Smith, J. J. H. Brown, Ira M. Rose, Chas. Kennedy, Harris Fosbinder and G. H. Raymond. An executive committee consisting of Alfred Haines, George Clinton and G. H. Raymond was appointed to take general charge of the work. The central idea of the executive committee was that the people of the State should thoroughly understood just what this 1000-ton barge canal really means to the commercial interests of the State, to show the farmer and the inhabitants of the counties away from the canal that their interest is also very great. In fact it was proposed to carry on such a campaign of education on the canal question throughout the State that the sixty-two million dollars required for the canal could be secured through proper legislative action which it was hoped to secure at Albany in the winter of 1900-'01.

A committee to solicit funds to carry on this educational campaign was appointed by the Merchants' Exchange, consisting of Alfred Haines, *ex officio* chairman, George

Clinton, Charles H. Keep, W. C. Cornwell, and G. H. Raymond.

It is proper at this time to pay a befitting tribute to Alfred Haines for his efforts in the matter of the 1000-ton barge canal. To those gentlemen who have borne the burden of the fight for it, no words are needed to convince them of the importance of the work done by Mr. Haines for the canal interests of the State. Without in the least detracting from the unselfish efforts of many Buffalo people in the canal fight it may be said truthfully that if it had not been for the efforts of Mr. Haines in providing the money necessary to carry on the canal bureau of the Buffalo Merchants' Exchange from 1900 to November, 1903, it is very doubtful if the 1000-ton barge canal would ever have been built. It was this bureau of the Merchants' Exchange that kept the fires of canal improvement continually burning. New York interests assisted from time to time, but no other persistent effort was made aside from that carried on through the canal bureau of the Merchants' Exchange; and the money necessary for this work was furnished almost entirely through the untiring efforts of Alfred Haines, to whose memory the people and commercial interests of Buffalo cannot pay too much respect.

The necessary funds being provided, the canal bureau of the Merchants' Exchange of Buffalo was organized and the writer was placed in charge. An active and continuous campaign of education was begun. A dozen stenographers and other office force were secured and enormous quantities of letters, circulars and printed matter of various kinds were sent all over the State in the effort to pave the way for legislation at Albany the following session.

The opposition was also very active in all sections of the State, and the farmers through the grange organization were steadily becoming more bitter in their opposition. The railroads by the efforts of their emissaries were also especially active, secretly and openly, to defeat the project.

The canal bureau of the Merchants' Exchange carried its campaign into the enemy's country. Addresses were made by the writer before boards of trade in Rochester,

Syracuse, Binghamton, Dunkirk, Ithaca, Albany, Kingston, and other places, preparatory to the legislative campaign of 1900-1901 at Albany.

It will be remembered that the canal question was now awaiting the result of State Engineer Bond's report on the cost of building the 1000-ton barge canal, for which survey the $200,000 had been appropriated by the last legislature. The dominant party was not friendly to canals by reason of its strength lying among the rural or anti-canal sections of the State. For this reason Governor Odell had not, like Governor Roosevelt, shown any particular love for canal improvement. Late in February, 1901, the report of State Engineer Bond gave the estimated cost of the 1000-ton barge canal at $87,000,000, as against the $62,000,000 estimate of the Roosevelt committee, whose estimates were not sufficiently complete by reason of their not having time or funds to make them so. This increased cost caused Governor Odell to go back to the obsolete Seymour plan, and estimates were asked from State Engineer Bond on that proposition. The estimate submitted was that to complete the Seymour plan along the lines of the nine million dollar plan of 1895 would cost about $19,000,000. The Governor's idea was that this obsolete plan should be pursued; but the canal friends would not accept this offer and again did the friends of canals rally.

A meeting of the canal committee of the Buffalo Merchants' Exchange was held March 16, 1901, at which the following were present: George Clinton, O. P. Letchworth, president of the Exchange, Alfred Haines, Harris Fosbinder, Thos. M. Ryan, Frank B. Baird, J. N. Scatcherd, John Cunneen, Howard J. Smith, Richard Humphrey, C. H. Keep, J. J. H. Brown and G. H. Raymond. President Letchworth, after a spirited meeting, in which decided opposition was shown to Governor Odell's plan, appointed a committee to meet with the canal friends from other sections of the State. It consisted of George Clinton, Alfred Haines, John Cunneen, G. H. Raymond and John Laughlin. On March 20, 1901, this committee met in Albany, with John D. Kernan of Utica, president of the State Commerce

Convention, Franklin Quinby, S. Christy Mead, F. S. Gardner, W. F. McConnell, Frank Brainard, F. Van Vliet, William R. Corwine of New York, A. R. Kissinger of Rome, A. C. Wardwell of Catskill, John T. Mott and Geo. B. Sloan of Oswego. Henry W. Hill of Buffalo was also present.

On March 24, 1901, a meeting was called on the Merchants' Exchange to receive the report of the conference at Albany. It was largely attended and the sentiment was still strong in favor of the 1000-ton barge canal and in opposition to Governor Odell's suggestion. A call for a third Commerce convention to be held at Syracuse, March 26 and 27, 1901, was read and President Letchworth of the Merchants' Exchange appointed the following committee: George Clinton, O. P. Letchworth, Alfred Haines, Frank B. Baird, M. M. Drake, John Cunneen, John Laughlin, G. H. Raymond, H. J. Smith, Harris Fosbinder, J. J. H. Brown, and Robert R. Hefford. This convention was even more enthusiastic than the two previous ones and the tone of the delegates showed conclusively that the fight for adequate canal improvement was now fairly on and that no compromise or defeat would be permitted. John D. Kernan made his usual ringing speech and showed the fallacy of accepting any compromise and especially the one suggested by Governor Odell of the completion of a plan which had been proposed a generation back. After a spirited discussion a resolution in favor of the 1000-ton barge canal plan as being the only acceptable plan was adopted, and the following committee appointed to wait on Governor Odell at Albany: George Clinton, John Laughlin and G. H. Raymond of Buffalo, Frank S. Brainard, S. Christy Mead and Aaron Vanderbilt of New York, Willis H. Tennant of Mayville and S. H. Beach of Rome. This committee had a conference with Governor Odell on March 29, 1901, but it was barren of results along the lines of the Syracuse resolution. Governor Odell was not disposed to accept anything looking to the 1000-ton barge canal, but stood for the obsolete Seymour plan, or as better known the completion of the nine million dollar plan of 1895.

All the canal men were dissatisfied with this result. The Buffalo interests feared that in view of the Governor's decision the 1000-ton barge canal must be dropped. The New York interests were not unanimous but were divided between what they could get, and standing for the 1000-ton barge canal or nothing.

After strong protests and extended conferences it was finally agreed upon, between the Buffalo interests, the "up-State" interests and a portion of the New York interests, to make a struggle for a 450-ton canal at an estimated cost of $26,000,000. This lack of harmony among the canal interests roused the canal enemies to renewed efforts to defeat all canal legislation. A bill carrying an appropriation for good roads was quickly introduced by canal opponents, knowing that by passing it no bill for canals could be voted upon at the same time, according to the Constitution.

However, the canal friends kept up the fight and a hearing on the $26,000,000 bill was had before the Assembly committee April 10, 1901. A peculiar condition prevailed. Alongside the bitter enemies of all canal improvement were lined up the New York interests who would have the 1000-ton barge canal or nothing.

Arguments in favor of the bill were made by George Clinton, John Laughlin, E. R. O'Malley and G. H. Raymond of Buffalo, and W. E. Cleary of New York. This bill was then reported out of committee. This peculiar condition could have but one result. It fell to the writer to make an effort to get the New York opponents into line, but it failed, and on April 20, 1901, the $26,000,000 bill was effectually killed when the Tammany Assemblymen withdrew their support.

However, the canal friends did not abandon the fight, and the Buffalo canal bureaau again took up the struggle which, during the summer of 1901, began to take on a different color. The effort was made to show both political parties that it was hardly safe for either to ignore the question in the future as they had done in the past in their fear of offending the rural voter. During the early summer the New York City canal interests which at one time favored

the 1000-ton barge canal or nothing were led off to chase the ship-canal plan for a time.

In June, 1901, at the request of the Merchants' Exchange canal bureau, the writer visited New York and again were the warring factions brought together and New York, Buffalo and the rest of the State again took up the 1000-ton barge canal plan and proposed to fight it out to a finish. September 3, 1901, a committee from the Merchants' Exchange consisting of President Haines, W. A. Rogers, Theo. S. Fassett, John Cunneen and G. H. Raymond went to New York to confer with the New York canal people. As a result an active campaign was planned for the next session at Albany.

The most evident change in public sentiment was the address of Governor Odell before the Merchants' Exchange of Buffalo on October 10, 1901, in which the Governor committed himself to canal improvement with the slight reservation as to its not being too expensive.

The "campaign of education" was kept up by the canal bureau of the Merchants' Exchange, and on November 2, 1901, the State committee appointed by the State Commerce convention, consisting of President John D. Kernan of Utica, F. S. Gardner, G. Waldo Smith, Henry B. Hebert, Charles N. Chadwick, Ludwig Nissen, W. R. Corwine, W. F. McConnell of New York, Alfred Haines, T. S. Fassett and Geo. H. Raymond of Buffalo, E. M. Bucklin of Ithaca and Willis H. Tennant of Mayville, met in New York to formulate plans for the year's campaign.

On November 21, 1901, J. D. Kernan of Utica; John Laughlin, Alfred Haines, Theo. S. Fassett, W. A. Rogers, G. H. Raymond of Buffalo; Frank Brainard, H. B. Hebert, Gustav H. Schwab, W. R. Corwine, and F. S. Gardner of New York; S. H. Beach of Rome, E. H. Bucklin of Ithaca, H. C. Main of Rochester and E. R. Redhead of Fulton, called on Governor Odell to urge upon him the importance of canal improvement along the lines of the 1000-ton barge plan. The Governor's message of January 1, 1902, further paved the way for the 1000-ton barge canal by first proposing to make the locks of the present canal large enough

for the 1000-ton barges, and the final building of the waterway to fit these locks.

On January 8, 1902, John Laughlin, Theodore S. Fassett and G. H. Raymond met H. B. Hebert and Frank Brainard of New York at Albany and in conjunction with Senator Henry W. Hill, T. D. Lewis and George A. Davis called on Governor Odell and submitted to him the resolutions passed by the Merchants' Exchange concurring in the Governor's suggestions as to the style of canal improvement to be undertaken. They also conferred with State Engineer Bond relative to a bill to embody these ideas.

Some little opposition arose on the part of the Oswego and Champlain canal interests, and delayed the introduction of a bill along the lines suggested by Governor Odell but it was finally introduced January 20, 1902.

On February 11, 1902, George Clinton, John Laughlin, R. R. Hefford, G. H. Raymond, Knowlton Mixer, Alfred Haines, T. S. Fassett, M. M. Drake, George Sawyer and H. J. Smith of Buffalo; H. B. Hebert, F. S. Gardner, John D. Kernan, W. F. McConnell, Frank Brainard, G. H. Schwab, F. B. Thurber, W. E. Cleary, W. R. Corwine, E. M. Clarkson, G. K. Clark, Jr., D. M. Van Vliet, F. E. Hagenmyer, F. S. Witherbee and A. R. Smith of New York; A. S. Taggart of Cohoes; S. E. Filkins of Medina; A. R. Kissinger and H. A. Caswell of Rome; Chas. Dickinson, G. W. Hall and G. H. Morgan of Lockport; C. N. Douglas, H. W. Arnold, Dexter Hunter, Fred Easton and W. H. Kibbee of Albany, appeared at Albany in support of the bill. The opposition consisted as usual of John I. Platt, practically representing the New York Central Railroad, and E. B. Norris of the State Grange.

Senators H. W. Hill and G. A. Davis of Buffalo and Assemblyman E. R. O'Malley appeared for the bill. This was one of the most important hearings had on canal improvement in many years.

The bill was finally reported out of the Senate committee carrying $31,500,000 and including in it the Champlain canal, but omitting the Oswego canal. In this shape it passed the Senate.

The opposition of the Oswego canal interests soon came to be very bitter. When the measure was reported from the Canals committee of the Assembly, there had been added the Oswego improvement, along the same lines as the Erie and Champlain. This complication again offered the anti-canal forces an opportunity to defeat canal legislation for the session; the result in fact was a defeat of the bill with Oswego in, and then it was defeated with Oswego out.

The enemies of the canal were continually trying first one plan and then another to block the work. Senator Ambler introduced a bill proposing to sell the canals. On February 20, 1902, George Clinton and G. H. Raymond of Buffalo appeared before the canal committee in opposition to the bill and John I. Platt and H. S. Ambler in favor.

The bill to sell the canals was killed in the committee.

By this time the Davis Senate canal bill was in the hands of the Rules committee of the Assembly and with a hostile majority against it in the committee its chances were very slim. A last effort was made to induce Governor Odell to get the bill from the committee, and the following committee waited on him: G. K. Clark, Jr., Frank Brainard, Abel E. Blackmar, S. C. Mead, W. F. McConnell and W. R. Corwine of New York, Alfred Haines, H. H. Persons, Theo S. Fassett, G. H. Raymond and F. Howard Mason of Buffalo. The effort was in vain, and once more was it made plain that in ways that are dark but effective the railroads had again killed canal improvement. The efforts of Senators Davis and Hill and Ramsperger were continued to the last minute to secure canal legislation, as were the efforts of Assemblyman O'Malley.

Notwithstanding these continued defeats the friends of the State canals would not be denied, and again were the ranks closed up and plans laid for the session of 1903. On May 14, 1902, Gustav H. Schwab, Frank S. Gardner, S. Christy Mead and W. R. Corwine of New York, had a conference at Buffalo with Alfred Haines, George Clinton, T. Guilford Smith, John Laughlin, J. J. McWilliams, M. M Drake, W. C. Farrington, H. J. Smith, G. W. Hall, Capt.

J. J. H. Brown, W. A. Rogers, Henry W. Hill, E. R. O'Malley, G. H. Raymond, Geo. A. Davis and George P. Sawyer. State Engineer Bond was also present. The result of this conference was a unanimous decision to continue the fight for canal improvement and to stand steadfastly for the 1000-ton barge canal. At this conference was taken up the question of possibly building the canal from Buffalo to Olcott and then by Lake Ontario to Oswego and the old line from there to Albany.

The following committee from Buffalo was appointed May 17, 1902, to meet the New York people at Albany at a later date: George Clinton, J. J. McWilliams, Major Thos. W. Symonds, R. R. Hefford, Alfred Haines, John Laughlin, John Cunneen, M. M. Drake, T. S. Fassett, George Sawyer, W. A. Rogers and G. H. Raymond.

The friends of the canal decided that they had been modest and retiring long enough. They held that both the political parties should take a position in favor of canal improvement and the first editorials on this subject appeared in the Buffalo papers late in July, 1902. The Buffalo *News* took an especially strong position on the matter in an editorial of July 31, 1902. The summer of 1902 saw a growing tendency on the part of politicians who had heretofore thought it the proper thing to ignore the canal question, actually to recognize its importance. There even was talk on the part of some canal men that a canal party should be formed. This plan, however, was not looked upon favorably by the regular fighters for canal improvement, but they steadily brought pressure on the two great political organizations that the canal question should not be ignored by either party.

On September 4, 1902, President Kernan of the State Commerce convention appointed the following gentlemen to attend the Republican State convention at Saratoga in the interest of canal improvement: George Clinton, Buffalo, chairman; Frank Brainard, F. S. Gardner, F. S. Witherbee, Ludwig Nissen, B. Leroy Dresser, New York; S. E. Filkins, Medina; Willis H. Tennant, Mayville; R. R. Hefford, John Laughlin, Alfred Haines, G. H. Raymond, Richard

Humphrey and G. P. Sawyer of Buffalo; G. W. Hall, Lockport.

On September 8, 1902, a rousing meeting was held on the floor of the Merchants' Exchange and ringing resolutions were adopted that set the political leaders of both parties to thinking. Six days later the New York canal men gave a dinner at Delmonico's to the New York editors, and the press of that city was soon taking as lively an interest in canal improvement as was the Buffalo press.

The Republican State convention assembled at Saratoga September 22d, and on the same day the delegates from the State Commerce convention held a meeting and appointed a committee to draw up suitable resolutions to present to the party convention. The committee consisted of R. R. Hefford of Buffalo, H. B. Hebert of New York, S. E. Filkins of Medina, W. E. Cleary of New York and G. H. Raymond of Buffalo. The resolutions of the committee were presented to the convention by Senator John Laughlin. As usual John I. Platt was on hand in the interests of the railroads to oppose any canal improvement plank. But the canal people would not be denied, and a plank committing the Republican party to canal improvement was put in the platform.

Similar tactics were employed at the Democratic State Convention held at Saratoga, October 1, 1902, and an even stronger canal plank was inserted in the platform of that party.

At this period meetings of the canal committees of the Merchants' Exchange of Buffalo and the Produce Exchange of New York were held in their respective cities. This was one of the most critical points in the canal struggle. A strong minority of these two committees were in favor of committing the canal men of the State to the Democratic party by reason of its canal plank. The defeat of that party, which did occur, would have given a long check to canal improvement, if not for all time. However, more moderate opinions prevailed and under the lead of Buffalo, resolutions were passed by both of these organizations thanking both parties and at same time not committing canal men

to either party. This brilliant stroke was accomplished by the great canal leader George Clinton, who again saved the canals of the State.

The pressure on both parties was kept up by the canal men and the candidates of both parties were asked to show their hands on the canal question. These tactics gave the politicians some interesting thoughts and the leaders of both parties in no uncertain tones affirmed that their respective parties were committed to canal improvement.

After election the canal friends again began the agitation preparing for the winter's session of the legislature. About December 1, 1902, the canal question was again badly mixed by the suggestion of Governor Odell that the Lake Ontario route from Olcott to Oswego should be favored. This made a new proposition for the canal people to fight and again were the enemies of the canals filled with joy that a new complication had arisen. All the canal interests united against the Lake Ontario route for the barge canal. On December 7, 1902, a committee from New York consisting of Gustav H. Schwab, F. S. Witherbee, Frank Brainard, Abel E. Blackmar and J. D. Trenor, came to Buffalo to consult with George Clinton, Alfred Haines, John Laughlin, R. R. Hefford, Geo. P. Sawyer, G. H. Raymond and Hon. Henry W. Hill, representing Buffalo. The result of this meeting was a renewed decision to stand for a 1000-ton barge canal or nothing, and a further decision to stand for the inside through-State route as against the Lake Ontario route. A meeting was held at the Merchants' Exchange December 8, 1902, and a committee consisting of George Clinton, John Laughlin, Alfred Haines, W. C. Warren, T. S. Fassett, G. P. Sawyer and G. H. Raymond were appointed to meet Governor Odell on December 11th in a conference with the New York canal friends. The result of this conference with the Governor was to fill the canal friends with the idea of the 1000-ton barge canal or nothing and no Ontario route to be considered. The Governor was non-committal.

At this stage Governor Odell in his annual message to the Legislature threw cold water again on the canal propo-

sition by adding the interest for fifty years to the cost of the canal and thus making enormous figures. This was hailed with joy by the canal enemies, but this narrow juggling with figures was soon out of the way and the real work for the big canal began.

On January 27, 1903, there was held a secret conference in Albany at which were present Gustav Schwab, H. B. Hebert, F. S. Gardner, Abel E. Blackmar and J. T. Trenor of New York; Robert Downey and J. B. McMurrich, Oswego; George Clinton, Alfred Haines, Major T. W. Symons, Henry W. Hill, R. R. Hefford, T. S. Fassett and G. H. Raymond of Buffalo. At this meeting it was decided to introduce a bill for the 1000-ton barge canal at a cost of $82,000,000 to follow generally the present route of the Erie canal, and to include both the Oswego and Champlain canals.

The canal adversaries were still active and persistent and at once sought to complicate the proposition by demanding $50,000,000 for good roads and threatening to block the canal plan.

On February 3, 1903, was the first hearing on the bill for canals, at which George Clinton, Henry W. Hill, John Laughlin, Major T. W. Symons and G. H. Raymond of Buffalo, Gustav H. Schwab and W. E. Cleary of New York, and F. B. Clark of Oswego, were present in its support. The railroads by their representative, John I. Platt, together with the grangers, opposed it as usual.

About this time all sorts of schemes were put out to stop the 1000-ton barge plan. A railroad in the bed of the canal was suggested. So was a ship canal from the St. Lawrence river to Lake Champlain. Another proposition was to sell the canal to the United States Government. And there were yet others.

At the hearing on February 3, 1903, occurred a dramatic situation when John I. Platt stated that Governor Odell had told him that he did not favor any canal legislation this year, and that it was a part of the Republican party plan to take the same position. Later at the same hearing Mr. Platt withdrew or qualified his statement and Governor

Odell later denied what Mr. Platt had said. This situation was naturally made the most of by canal friends.

About the middle of February, 1903, a final attack was made on the canal bill by its enemies who sought to show that the eighty-two million dollar estimate was much too small. This gave further time to delay action until revised figures could be made, the idea of the canal enemies being not to get accurate figures but by some means to make the estimates so high that the people would be frightened and demoralized at their magnitude.

To combat this effort a hearing was held at Albany February 16, 1903, at which David J. Howell of Washington, an expert on estimates for canal work, Edward R. O'Malley and G. H. Raymond of Buffalo, A. E. Blackmar, W. F. King and E. S. Morrison of New York, were present in favor of the bill; the usual railroad and granger opposition was also present. A third hearing was held February 25, 1903.

Early in March the State Engineer submitted an estimate that the 1000-ton barge canal would cost $101,000,000. This was what the canal enemies had hoped would kill the whole plan. The canal friends, however, were not dismayed for a moment and at once changed the bill to carry this great sum and kept up the fight for the passage.

March 24, 1903, the bill was passed in the Senate after seven and one-half hours' debate by a vote of 32 to 14. On March 27th by a vote of 87 to 55, after eight and one-half hours' debate, the bill passed the Assembly. It was duly signed by Governor Odell and the great step had now been taken which made it possible for the people of the State to decide this momentous question of canal improvement.

Early in May the campaign was formally started and the Canal Improvement State Committee was formed. It was composed of Gustav H. Schwab, H. B. Hebert, Frank S. Brainard, Frank S. Witherbee of New York; F. O. Clark of Oswego; R. R. Hefford and John W. Fisher of Buffalo. John A. Stewart of New York and G. H. Raymond of Buffalo, were appointed secretaries. I moved my headquarters from Buffalo to New York for the campaign and

took active charge of the literary part of the work for canal improvement.

The canal friends were badly handicapped for funds to carry on the campaign, but there seemed to be no lack of money for the opposition, and this opposition soon made itself felt in no uncertain way. The New York *Sun* kept up a daily attack on the project. The opposition organized an anti-canal bureau in Brooklyn and hired men to distribute anti-canal literature. The real hotbed of the effort to destroy the canals and turn the commerce of the State over to the railroad monopoly was at Rochester, whose prosperity was primarily due almost entirely to the Erie canal. The strangest part of the Rochester opposition lay in the fact that the head and front of this opposition was the Chamber of Commerce of that city.

An anti-canal State convention was held at which as usual the railroad hand was most in evidence through the efforts of Hon. John I. Platt of Poughkeepsie, who was honest enough to admit that the New York Central Railroad paid his expenses.

A literary bureau of canal opposition was also maintained at Rochester and every effort made to defeat the project. John M. Ives, secretary of the Rochester Chamber of Commerce, was the active resident agent of the anti-canal forces of the State. All sorts of schemes were evolved to defeat the plan. One of the most amusing was a solemn manifesto issued by sixteen State senators elected from the farming sections of the State, warning the people against the efforts being put forth by New York and Buffalo to carry the measure. At the same time these same counties were beneficiaries from taxes paid by those two great cities to the extent of millions of dollars.

In spite of many discouragements the Canal Improvement State Committee kept at work. Strong champions of the project sprang up and spoke in various cities and villages, at fairs, etc., throughout the State, and none of them rode on railroad passes as was the case with some at least of the canal enemies.

Among these champions of the canal cause whose names should be here chronicled, were P. W. Casler of Little Falls; John D. Kernan of Utica; R. R. Hefford, H. W. Hill, John Laughlin, E. R. O'Malley, George Clinton, G. H. Raymond, Herbert P. Bissell, John Cunneen, O. P. Letchworth, Leonard Dodge, Howard J. Smith, L. P. Smith, F. Howard Mason, W. C. Brown, John N. Scatcherd, Thos. M. Ryan, M. M. Drake, J. J. H. Brown, Gen. F. V. Greene, Major T. W. Symons, T. S. Fassett and John Joslyn of Buffalo; Gustav H. Schwab, H. B. Hebert, F. S. Gardner, J. D. Trenor, W. F. McConnell, Erastus Wiman, Abram Gruber, Bird S. Coler, Thos. F. Grady, Robt. M. Campbell, W. E. Cleary, Chas. A. Schieren, Frank Brainard and Frank S. Witherbee, New York; George E. Green, Binghamton; Willis H. Tennant, Mayville; Charles E. Watson, F. B. Griffin, Clinton; W. Pierrepont White, Utica; J. D. Filkins, Medina; Gordon W. Hall, Charles Dickinson, Lockport; O. E. Jones, B. S. Dean, Ernest Cawcroft, Jamestown; J. S. Woodward, A. M. Evans, Herkimer; Frank S. Oakes, Cattaraugus; Daniel Toomey, Dunkirk.

The Canal Improvement State Committee had less than $15,000 for this great fight but made the best effort possible. Gustav H. Schwab left New York on his vacation some time before the close of the campaign and Chas. A. Schieren of Brooklyn was made chairman of the committee in his stead. The entrance of ex-Mayor Schieren actively into the campaign put new life into it. Greater New York, under the most efficient management of W. F. McConnell, was covered with cart-tail meetings and a million circulars were distributed.

Too much credit cannot be given to the daily press of Greater New York which with the glaring exception of the *Sun*, supported the 1000-ton barge canal project unanimously. Every paper published in Buffalo loyally supported the project and to the Buffalo press should be given the credit of arousing the press of Greater New York.

The enemies of the canal were very active up to the last day of the campaign, and its friends, badly handicapped, also continued the fight. The people finally won against all opposition. On November 4, 1903, the 1000-ton barge canal proposition was carried by a majority of 245,323.

In a chronicle of this kind it is impossible to give proper credit to all of those entitled to it, as each canal friend did his best in his own manner; but there are certain critical times that stand out in bold relief when it can be clearly shown that the right man was found at the right time to save the canal system of the State.

To the Honorable George Clinton is due the credit for keeping the canal spirit alive when as a member of the Assembly he secured an appropriation for lengthening one lock on the Erie canal.

To the Honorable Henry W. Hill of Buffalo is due the credit of saving the canals, when, after a most bitter struggle in the Constitutional Convention of 1894, to which he was a delegate, he succeeded in putting in the clause prohibiting their sale and abandonment.

To the Honorable Thomas C. Platt of New York is due the credit of saving the canals when he forced the Committee on Rules of the Assembly in 1900-'01 to report out the bill appropriating $200,000 for the survey and estimates which finally made the 1000-ton barge canal possible.

To the late lamented Alfred Haines of Buffalo is due especial credit for the final successful result of the great canal struggle as he, almost alone, raised the funds that made it possible to carry on the educational campaign which finally brought the barge canal plan to a successful vote.

To the Honorable George Clinton is again due especial credit for his marvellous diplomacy in keeping the canal friends in Buffalo and New York from allying themselves with the Democratic party in 1902, as its defeat, which occurred, would have killed all future efforts, as the Republican leaders were not friendly to the project and would have been able to say that the canal people and the Democrats were both defeated at that election.

To the late Honorable Timothy Ellsworth of Lockport is due especial credit for the brilliant *coup* made by him, assisted by the Honorable Thomas F. Grady of New York, when he brought the $200,000 canal survey bill of 1900 out of the finance committee which with the Honorable Frank Higgins, afterward Governor, as chairman, had a majority opposed to the bill. No more brilliant parliamentary battle was ever fought or more gallantly won than this by Senator Ellsworth.

NOTE — For fuller record of the Utica, Syracuse and Buffalo commerce conventions, *see ante*, pp. 12-33.

REMINISCENCES OF

THE BARGE CANAL CAMPAIGN

By HOWARD J. SMITH,

Assistant Secretary, the Buffalo Merchants' Exchange Canal Committee.

I had taken some interest in canal enlargement during the campaign for the adoption of the nine million dollar improvement and had made a few speeches before clubs and other organizations in favor of the appropriation; but it was not until the spring of 1898 that I became actively identified with the canal movement. At that time, when the failure of the nine million appropriation became manifest, I prepared for the Buffalo *Evening News* a number of articles arguing for a better canal. Mr. L. P. Smith of this city urged me to do this and furnished me with facts in regard to local traffic on the canals. The argument founded on these facts was widely copied and started a very active discussion among the newspapers of the State. The Buffalo *Evening News* defended the argument for a larger canal, and for a time was almost alone among the papers of the State.

I continued to write for the various Buffalo papers, always arguing that in spite of past errors the improved canal was necessary and should be built. Theodore Roosevelt was elected Governor in 1898, and in 1899 he appointed his canal committee to consider the whole subject and make recommendations. The year 1899 was spent in study of the question and a report was made to the Legislature in March, 1900. I remember the effect of that report upon Buffalo

canal men. It literally took our breath away. While some of us had been, in a measure, prepared for it, yet the greatly increased size of canal which was recommended and the large cost, even as then estimated, caused many of the Buffalo canal men, including those most closely connected with the operation of the present canal, to doubt the possibility of getting the people to favor such a radical step.

In 1899 a State Commerce convention was held in Utica to consider canal improvement, but as the committee was not yet through with its work no definite action could be taken. A second convention was called for June, 1900, and at that convention, which I attended as a delegate from the Buffalo Merchants' Exchange, the new plan was discussed for the first time by men from all parts of the State. While all, or nearly all, the delegates, favored canal enlargement, there was a decided division on the length to which the State should go. It will be remembered that the canal committee appointed by Governor Roosevelt suggested a modification of the old Seymour plan by which a very substantial increase in carrying capacity could be obtained at a moderate cost, but recommended the building of a much larger canal, practically a new canal, with route changed for two-thirds of its length. At this convention the New York City delegates were nearly alone in their advocacy of the larger plan. One notable exception was the Hon. John D. Kernan of Utica, the chairman of the convention. Practically all of the town delegates favored the old Seymour plan, because it followed the old route and because it cost much less and would therefore be easier to obtain.

At this convention the Buffalo delegates under the leadership of George Clinton fought to prevent the indorsement of the 1000-ton barge plan. In this they were greatly aided by the late Senator Sloane of Oswego, who was one of the strongest men in the convention. The New York men were beaten, and the convention adjourned without indorsing the 1000-ton barge plan, to meet again after the report of the State Engineer, on the cost of the different projects, was ready. The survey which had been ordered as one of the last acts of the Legislature of 1900, was then being made.

Mr. L. P. Smith of Buffalo urged upon the Buffalo Merchants' Exchange the appointment of a special canal committee to carry on campaign work for an enlarged canal, and this committee was organized in November, 1900, with George Clinton as chairman, George H. Raymond as secretary, and myself as assistant secretary, with the special duty of furnishing articles and material to newspapers. Subscriptions were immediately solicited, and I took an active part in this work, raising considerable money. I devoted most of my time, however, to organizing a country newspaper campaign. I was soon supplying about 200 country weeklies with "plate." This was in the winter of 1900-1901, and in February, 1901, I went to New York, believing I could get the financial aid of the New York canal people for our work. I succeeded in getting them to agree to pay for all "plate" matter furnished to newspapers east of Syracuse. Mr. H. B. Hebert was at that time chairman of the canal committee of the New York Produce Exchange, and it was to that committee that I stated my case. Just at this time, however, and before any plates had gone out on the new arrangement, the report of the State Engineer on the barge canal survey was made public. The greatly increased cost of the project, as shown by the detailed survey, staggered us all again.

The State Commerce Convention met in March at Syracuse for its adjourned session. At that convention, as at the one nearly a year before, the Buffalo delegates, and particularly their leader, the Hon. George Clinton, put forth every effort to prevent a declaration for the 1000-ton barge canal.

A third convention was held in the summer of 1901 in Buffalo, during the Pan-American Exposition. By that time the arguments of the New York delegates had prevailed to such an extent that a resolution favoring, in general terms, the 1000-ton barge plan, was passed.

During the next session of the Legislature, early in 1902, a bill was prepared and introduced, largely at the instance of Buffalo men, to carry out the Seymour plan. Hearings were held and some progress was made, but the sudden and

firm opposition shown by the New York members at the request of the Produce Exchange and allied organizations of New York City, put an end to any possibility of its passage. The New Yorkers were firm and unyielding in their demand for the 1000-ton barge canal.

The message of Governor Odell in January, 1901, was unique in that, in the discussion of the canal problem, glaring errors were made, the wrong figures having been taken by the Governor from the report of the Canal Committee. This message caused considerable amusement as well as serious criticism. In the State campaign of 1902 the parties were for the first time forced to take notice of the growing canal improvement issue. The Buffalo Merchants' Exchange sent men to both State conventions. The late John Laughlin, former State Senator, attended the Republican, while Theodore S. Fassett went to the Democratic convention, and both urged upon the leaders the importance of putting a strong canal improvement plank in the platforms. The Republican convention, dominated by men from country districts, failed to comply, their plank being a mere meaningless jumble of generalities. The Democrats on the other hand adopted a real canal improvement plank and appealed for votes as the "Canal Party." Governor Odell, in his speech of acceptance, came out for the 1000-ton barge canal, so that the failure of the Republican convention to take an advanced position in the canal matter made little or no difference in the result. Governor Odell was reëlected, and a canal bill providing for a 1000-ton barge canal, was prepared; and at the end of the session, in April, 1903, it passed the Legislature.

The canal men set to work at once to prepare for the popular election in November. A State organization was formed and the newspaper work was assigned to me. I organized it as before, supplying the country weeklies with "plate" and the city papers with special articles and interviews.

The question of obtaining the aid of labor unions came up early in the spring, even before the bill passed the Legislature, and all labor work was put in the hands of Mr.

Warren C. Browne, at that time a resident of Buffalo, but since removed to New York. Mr. Browne was assisted by a special committee of which I was a member.

The canal enlargement plan was presented to nearly every labor organization in the State and was generally approved.

An analysis of the vote shows the great aid given by labor. In the strongest anti-canal sections of the State a good minority vote was polled, wherever there were labor organizations.

My work included the originating of arguments for canal enlargement, the preparation of articles, and the preparation and revision of speeches and addresses. I gave a dinner at my home some two weeks after the election, at which I had as guests the men who had done the hard work of the campaign. Among them were the Hon. George Clinton, chairman of the Canal Enlargement committee of Buffalo; Mr. Leonard Dodge, president of the Chamber of Commerce; Capt. J. J. H. Brown, an active member of the Canal Committee; Mr. John R. Joslyn, associate editor of the Buffalo *Evening News,* who had led the canal fight in the newspapers; Mr. Warren C. Browne, in charge of labor work, and Senator Henry W. Hill, the orator of the canal cause.

"O, I have passed a miserable night,
So full of ugly sights, of ghastly dreams,
So full of dismal terror was the time."—SHAKESPEARE.

A NEWSPAPER CARTOON OF THE BARGE CANAL CAMPAIGN.

THE NEW YORK STATE PRESS

IN THE CAMPAIGN FOR

ENLARGEMENT OF THE CANALS

By M. M. WILNER,

Of the editorial staff of the Buffalo *Express*, and member of the Buffalo Historical Society.

The part of the newspapers in the campaign for the enlargement of the Erie Canal consisted chiefly of reporting the legislative events and the public discussions which are described in other papers in this symposium.

Previous to 1894 the defense of canal interests was left largely to the boatmen themselves. Captain "Bill" Clark of Constantia was the chief press agent. He wrote his name "Captain W. C. Clark," but it should properly go into canal history as "Bill," since that was what everybody called him. It was Captain "Bill's" chief business in life to travel up and down the State, calling at the newspaper offices and keeping them informed on the needs of the canal from the boatmen's viewpoint. He haunted the Capitol during legislative sessions; he hung around the hotels at all State conventions; everybody laughed at him; no one paid much attention to him. But there was really quite an important political power back of the quaint old agitator. He claimed to represent and, in a sense, did represent the votes of the boatmen. There were at that time over 4,000 canal boats in use. Estimating that each boat represented five voters, the managing politicians could easily see that here was a force which could not be antagonized without some danger.

There was, of course, a great business element in the State supporting the canal also, but it was the voice of the organized boatmen which was most in evidence among the newspapers and politicians in those years. So the parties regularly put canal planks in their platforms and the Legislature usually appropriated at each session enough to enlarge a lock here and there or to dredge out a few shallow places, while the canal steadily deteriorated and canal commerce steadily declined.

When the Constitutional Convention of 1894 voted $9,000,000 to enlarge the canals, it was generally looked upon by the newspapers as a sort of grand sop to the boatmen. There was very little newspaper support for the proposition outside of Buffalo. It is true a canal conference representing general business interests had recommended the appropriation to the convention, but newspapers are apt to judge by surface indications and the canal interests which were most plainly in sight were the boatmen.

The New York papers generally ignored the matter or opposed it. The New York *Times* was conspicuous in opposition up to the eve of election. It argued in favor of turning the canals over to the Federal Government for conversion into a ship canal. But just before election the *Times* suddenly swung back to what had been its historic policy and supported the appropriation. In fact the entire metropolis appeared to awake almost in a night to the importance of the project. A great mass-meeting in its favor was held and on election day the city gave 32,613 majority for the appropriation, while Brooklyn gave 20,362.

That Buffalo was the center of this canal movement, however, is shown by the vote of 27,469 cast by Erie county in favor of the appropriation to 9,654 against it. In proportion to the size of the city the Buffalo majority was much larger than that of either New York or Brooklyn. The agitation had been taken up early by the Buffalo Merchants' Exchange and was conducted with intelligence and enthusiasm. Robert R. Hefford and George Clinton are names which should be mentioned in this connection, but among Buffalo canal men there is no one who deserves greater

credit than Henry W. Hill. George Z. Lincoln's "Constitutional History of New York" contains the following:

> "The most elaborate and comprehensive speech on canals in the convention was delivered by Henry W. Hill of Buffalo. Mr. Hill had given the subject long, patient and thorough study and had, apparently, examined it from every point of view. . . . The student of the economic relations of canals will find here the whole subject so carefully considered and so clearly arranged that little need be sought elsewhere."

The election of Henry W. Hill to the Assembly after the close of the convention, and later to the Senate, gave the canal men an advocate in the Legislature for whose services too much praise can not be spoken.

The fact that the $9,000,000 appropriation had proved insufficient to accomplish its purpose was first made known to the public by the Buffalo *Express*. In a series of articles beginning on December 6, 1897, it described in detail the manner in which the money had been expended, the amount of work done and the condition of the fund at the time. The truth of the *Express's* statements was soon afterward acknowledged by a formal order suspending canal improvement work. Governor Black appointed a commission of inquiry, consisting of George Clinton, Franklin Edson, Smith M. Weed, Darwin R. James, Frank Brainard, A. Foster Higgins and William McEchron. The commission reported that 36 per cent. of the work had been completed and that $15,000,000 more would be needed to finish it according to the plans.

An anxious time followed. Opponents of the canals assumed that the idea of enlarging or even maintaining for any long period the canal system had been killed, and were correspondingly elated. But the interests concerned were too important to let the project be dropped. Under a law of 1898, Governor Black appointed a commission to investigate the causes of the decline of the commerce of the port of New York. It consisted of Charles A. Schieren, chairman; Andrew H. Green, C. C. Shayne, Hugh Kelley and Alexander R. Smith, secretary, with Ben L. Fairchild as

counsel. Soon after Governor Roosevelt assumed office, in 1899, he appointed a committee for the special purpose of considering the question: what should be done with the canals? Its members were Francis V. Greene, chairman; George E. Green, John N. Scatcherd, Major Thomas W. Symons, U. S. Engineers; Frank S. Witherbee, Edward A. Bond, State Engineer and Surveyor; John N. Partridge, Superintendent of Public Works, with John A. Fairlie, secretary. Both the commerce commission and the Roosevelt canal commission reported at about the same time in 1900. Both strongly urged canal improvement. The commerce commission reported that an enlarged canal was necessary to correct railroad discrimination against New York and recommended the appropriation of $15,000,000 to complete the work in hand. The more famous Roosevelt commission recommended the barge canal for boats of 1,000 tons capacity.

The various steps taken in the Legislature, in conventions and by business organizations to bring about the adoption of this plan do not come within the scope of this paper. So far as the press was concerned the canal subject remained a live one from the time of the appointment of the Roosevelt commission till the $101,000,000 appropriation had been adopted by the Legislature and approved by the people. The discussion did not at any time become political, though Democrats took what advantage they could of the failure of the $9,000,000 appropriation under a Republican administration. The division was, rather, upon geographical lines. Most of the country papers bitterly opposed the appropriation. All through the Southern Tier of counties the opposition was strong. The Elmira *Advertiser* and the Binghamton *Republican* were leading anti-canal papers in that quarter. Northern New York was equally strong in opposition, the Watertown *Times* being the principal newspaper to voice the hostility. But, most discouraging of all, was the appearance of fierce opposition along the line of the canal, where hitherto canal sentiment had been predominant. Syracuse and Utica both turned against the cause. Rochester was the chief center of the defection.

Much of the anti-canal work in Rochester was done by John A. C. Wright, who proved to be a very persistent and energetic leader of the anti-canal forces. The Rochester *Post Express* and the Rochester *Democrat and Chronicle* were vigorous in opposition, and the Rochester Chamber of Commerce adopted anti-canal resolutions. The Rochester contention was that the Erie canal should be turned over to the United States Government and enlarged to a ship canal. This fascinating idea, which had always given the practical canal men considerable trouble, had gained some authority from the report of engineers employed by the United States Government under the deep waterways commission. The obvious answer was that the time required for so long a voyage would be so great that large lake or ocean ships would not be able to transport cargoes over the route so cheaply as the inexpensive barges and probably could not afford to use such a canal at all, since they could make more money in deep-water voyages. But it is always hard to convince the American public that the biggest thing is not necessarily the best, and the ship-canal delusion undoubtedly cost the barge project many votes.

The great New York dailies, as a rule, paid little attention to canal matters, though the *Sun* came out in opposition, pouring forth invective, ridicule and argument in nearly every edition. The *Journal of Commerce,* New York's great business daily, however, was a tower of strength for canal improvement. All of the Buffalo papers worked hard for the appropriation. There were many individuals in the anti-canal territory who spoke and wrote and exerted all the influence they could for the canals. This was particularly true in Chautauqua county. George E. Green of Binghamton also afforded a conspicuous example of the effect of a careful study of the question. He had been appointed to the Roosevelt commission as a representative of the anti-canal sentiment. He was frankly against the canals when he entered upon the investigation. He was a strong canal man when the commission's work was finished, and he advocated the appropriation, despite the bitter hostility of his constituency.

When the vote was taken it showed sixteen counties for the canals, as follows: Albany, Cayuga, Erie, Essex, Kings, Nassau, New York, Niagara, Orleans, Oswego, Queens, Richmond, Rockland, Suffolk, Ulster, Westchester. The details of the vote may appropriately be inserted here:

	FOR	AGAINST	MAJORITY
Albany	16,153	14,452	1,701*
Allegany	994	7,073	6,079**
Broome	2,401	11,696	9,295**
Cattaraugus	2,239	7,391	5,152**
Cayuga	6,140	1,309	4,831*
Chautauqua	3,116	10,738	7,622**
Chemung	975	6,879	5,904**
Chenango	1,034	6,917	5,883**
Clinton	1,910	4,006	2,096**
Columbia	1,526	5,498	3,972**
Cortland	695	6,140	5,445**
Delaware	1,326	9,111	7,785**
Dutchess	4,099	7,779	3,680**
Erie	39,451	8,355	31,096*
Essex	1,864	1,660	204*
Franklin	912	5,302	4,390**
Fulton	1,751	2,409	658**
Genesee	1,446	3,680	2,234**
Greene	1,823	4,017	2,194**
Hamilton	307	513	206**
Herkimer	4,692	4,874	182**
Jefferson	1,924	11,166	9,242**
Kings	62,282	20,925	41,357*
Lewis	1,020	5,222	4,202**
Livingston	761	6,063	5,302**
Madison	2,089	6,268	4,179**
Monroe	5,247	21,443	16,196**
Montgomery	3,074	3,962	888**
Nassau	4,393	2,740	1,653*
New York	252,608	28,979	223,629*
Niagara	8,514	4,014	4,500*
Oneida	8,401	12,038	3,637**
Onondaga	9,061	11,477	2,416**

* Majority for.
** Majority against.

	FOR	AGAINST	MAJORITY
Ontario	1,532	9,951	8,419**
Orange	5,326	8,952	3,626**
Orleans	2,684	2,411	273*
Oswego	7,564	5,759	1,805*
Otsego	1,105	9,068	7,963**
Putnam	1,096	1,552	456**
Queens	20,945	4,308	16,637*
Rensselaer	3,546	6,892	3,346**
Richmond	8,965	1,517	7,448*
Rockland	3,939	1,866	2,073*
St. Lawrence	1,172	12,713	11,541**
Saratoga	4,508	6,894	2,386**
Schenectady	1,816	2,622	806**
Schoharie	836	5,476	4,640**
Schuyler	280	3,356	3,076**
Seneca	907	4,687	3,780**
Steuben	1,502	14,638	13,136**
Suffolk	5,701	5,021	680*
Sullivan	1,306	5,252	3,946**
Tioga	374	5,579	5,205**
Tompkins	720	5,498	4,778**
Ulster	8,369	7,728	641*
Warren	2,525	2,745	220**
Washington	3,844	5,237	1,393**
Wayne	2,473	7,691	5,218**
Westchester	24,498	8,499	15,999*
Wyoming	865	3,593	2,728**
Yates	294	4,097	3,803**
Totals	673,010	427,698	245,312*

* Majority for.
** Majority against.

SECOND REPORT OF THE

WESTERN INLAND LOCK NAVIGATION COMPANY

1798

SECOND REPORT OF

THE WESTERN INLAND LOCK NAVIGATION COMPANY

1798[1]

To the Honorable the Legislature of the State of New York, in Senate and Assembly convened:

The directors of the Western Inland Navigation Company respectfully report:

That in the summer and fall ensuing the establishment of the said company by the act of March, 1792, surveys were made on the Mohawk river from Schenectady to Fort Schuyler, and on the Wood creek from that place to its termination on the Oneida lake.

The object of those surveys was to ascertain what improvement the navigation was susceptible of, and what, in particular, were the greatest obstructions to the water transportation of the agricultural produce of the interior of the State. The result was an impression favorable to the objects of the institution, and was followed by a determina-

---

1. The second report of the Western Inland Lock Navigation Company, printed here in fulfilment of the pledge made in the preceding volume of these Publications (vol. XII., Introduction, p. xii), is a rarer document than even the first report (New York, 1796). The first report will be found reprinted in volume II, Buffalo Historical Society Publications. The second report, signed by Philip Schuyler, Feb. 16, 1798, is in effect the official history of New York's first canal project from its inception in 1792, to 1798. As Senator Hill has shown (XII., 72) the expense of the improvements projected by the Northern and Western Inland Lock Navigation Companies proved so great that their plans were never carried to completion, their works being later absorbed by the State in its larger canal enterprise.

tion, on the part of the company, to begin operations at the Little Falls in Herkimer county, which created a portage where all boats navigating the Mohawk river, with their cargoes, were transported nearly one mile over land; an operation attended with unavoidable delay and great expense, as well as with injury to the boats and their cargoes. The work was accordingly commenced in April, 1793, with nearly three hundred laborers, besides a competent number of artificers; but its progress was arrested early in September, for want of funds; many of the stockholders having neglected to pay the requisitions made by the directors, either because they had not the means to supply such advances, or from an apprehension of the impracticability of succeeding in the operation.

In January, 1794, the work was recommenced, although feebly, and some progress made, in hope that the Legislature would afford assistance by grants or loans of money, or by taking unsubscribed shares. Accordingly the Legislature, sensible of the propriety of relieving the stockholders in one or other of these modes, and appreciating, with that discernment which has invariably characterized the Legislature of this State, the advantages the community at large would derive from the accomplishment of the important undertaking which they had encouraged individuals to attempt, directed a subscription, on the part of the people of the State, of two hundred shares. This measure was attended with the most salutary effects. The hopes and confidence of the company were revived, and the works recommenced in May, 1795, with a correspondent degree of alacrity. But the very high price of agricultural produce creating a most extensive demand for labor, it was found impossible to obtain such a number of workmen as were requisite to finish the works before the end of the summer, and it was not until the 17th of November that the canal and locks were so far completed as to afford a passage to boats.

As a description of the country through which the canal is carried, a detail of its foundation, and a delineation of the beneficial effects which have already been, and hereafter

will be experienced from it, may not be uninteresting to the community, and in particular to the Legislature, whose deliberations have the interest of their constituents so constantly in view, we beg leave to exhibit the following summary:

The canal is drawn through the northern shore of the Mohawk river, about fifty-six miles beyond Schenectady. Its track is nearly parallel to the direction of the waters of the fall, and at a mean about forty yards therefrom. It is supplied with water from the river above the falls, commencing in a natural basin, whose position secures the guard lock (which is placed at the extremity of the canal) from any injuries which might be apprehended to arise from ice or driftwood in times of freshets. From the basin, extending in an oblique direction across the stream to the opposite shore, a dam has been thrown, which, by creating an additional depth of water of twelve inches, saved the great expense which would have attended the excavation of the canal through the solid rock to procure the same depth of water, and has also materially improved the navigation of the river for a considerable distance upwards.

The length of the canal is four thousand seven hundred and fifty-two feet, in which distance the aggregate fall is forty-four feet seven inches. Five locks, having each nearly nine feet lift, are placed towards the lower end of the canal; and the pits in which they are placed have been excavated out of solid rock of the hardest kind. The chamber of each lock is an area of seventy-four feet by twelve in the clear; and boats drawing three feet of water may enter it at all times. The depth of water in all the extent of the canal is various, but not less than three feet in any place. A waste wear [weir] is constructed to discharge the surplus water entering the canal, from two small rivulets which intersect its course.

About two thousand five hundred and fifty feet of the canal is cut through solid granite rock, and when the level struck above the natural surface of the earth, or rather rock, strong and well-constructed walls were erected supported by heavy embankments of earth, to confine the earth

and keep the level; hence, there is no other current in the canal than an almost imperceptible one when the paddles of the locks are raised. Three handsome and substantial bridges are thrown over the canal, at so many roads which have been intersected by it.

The following state of facts will evince the beneficial influence this important work has had on the transportation to market of the produce of the country beyond the falls; and on the return of the necessary supplies for the consumption of our useful, hardy husbandmen in that quarter, employed in reducing a wilderness to smiling fields, promoting their own happiness, and the commerce and respectability of the State.

The falls, previous to the improvements above stated, being impassable, even for empty water craft, these, with all their cargoes were transported by land, over a road as rough, rocky, and bad as the imagination can conceive; of necessity, therefore, the boats were of such a construction as might be transported on a wheel carriage, consequently of little burthen, seldom exceeding a ton and a half; each boat was navigated by three men; and a voyage from Schenectady to Fort Schuyler, a distance of one hundred and twelve miles, and back to the former place, was seldom made in less than nine days. Thus, the transportation of a ton of produce, if no back freight offered, was equivalent to one man's wages for eighteen days.

The canal and locks will admit the passage of boats of thirty tons burthen with facility; but impediments in the river, still to be removed, between Schenectady and the Little Falls, prevent the use of boats of more burthen than ten or eleven tons; each of these is navigated by five men, and make the same voyage in fourteen days, which is at the rate of seven days' wages of one man for one ton. But until the improvements shall be completed, which are contemplated to be made in the river above and below the falls, these boats, when the water in the river is at its lowest state, which is usually from the middle of July to the end of September, can only convey about five or six tons during that period; then the transportation of a ton between the

places aforesaid is equal to the wages of one man for fourteen days, affording still an important saving, exclusive of that which arises from the speedy passage of the boats through the canal and locks; the whole time taken up to pass through both not exceeding three quarters of an hour; but transported as heretofore, by land, caused a detention at least of one day, and frequently of a longer time.

Early in the spring of 1796, the directors commenced their operations at Fort Schuyler. Their object was to effect a junction of the waters of the Mohawk with those of Wood creek, by means of a canal between the respective landing-places. The difficulty of procuring laborers, from the existence of the causes before mentioned, prevented the completion of the work that season; but during the winter of 1796 and 1797 the necessary arrangements having been made, a sufficient number of men were obtained, who recommenced the work in April last; and, although there was a considerable extension of the original plan, yet the whole was opened for the passage of boats on the 3d of October. As the beneficial consequences resulting on these improvements extend much further than the mere removal of the portage, it may not be improper to enter into a detailed account of the former and the present modes of transportation.

Previous to the completion of the canal, the commerce of the western parts of the State was carried on by means of the batteaux before described, carrying, on the average, one ton and a half. On their arrival at the landing-place, the boat was unladen, hauled out of the water, and conveyed, together with the cargo, on wagons across the carrying-place, to Wood creek, where, if it happened that there was a sufficiency of water, the cargo was taken on board again, and the boat, aided by a flush from a mill-dam, descended the creek to the Oneida lake; but if the water was low (which was generally the case from the beginning of June to October), the lading was conveyed five miles further to Canada creek, along a road scarcely passable. The delay and consequent expense at this season was very great; the difficulty of ascending was still greater; the boat was

unladen at Canada creek, and, as the state of the road would not admit of its conveyance by land, oxen were applied, and by main strength dragged it along the bed of the creek, to the great detriment and injury of the boat.

On the most moderate calculation it may be affirmed that the delay in passing over the carrying-place was, on an average, one day, and frequently much more; while at present the boats, with a greater quantity of goods on board, and without sustaining the smallest injury, pass over the same space in three hours, and the remainder of the voyage to the Oneida lake is much facilitated and expedited by means of the additional quantity of water which is thrown into the creek. Formerly it was the stated custom to collect the waters of Wood creek in the mill dam during the night, and early in the morning to discharge the same, which creating a temporary flush, such boats as were in readiness availed themselves thereof. But if they arrived a few minutes after the discharge, they were detained until the following morning, whereas at present the regulations are such that the time of arrival is immaterial, and the voyage is continued without interruption or delay.

The length of the canal from the Mohawk to Wood creek is two miles and three chains, one-third of which distance is cut through a gravelly hill from twelve to eighteen feet in depth. The width is thirty-seven and a half feet, and boats drawing three and a half feet of water may pass freely along it.

A lateral branch is cut from the canal to the Mohawk river, upwards of five hundred yards in length, and from ten to twelve feet deep; by means of this feeder any quantity of water can be taken into the canal and discharged into Wood creek or the Mohawk, as circumstances may require. To regulate the supply, and to prevent the works being injured by the freshets, a large regulating waste wear [weir] is constructed across the feeder; another of a similar form is erected near Fort Newport, for the purpose of furnishing the necessary supplies of water to Wood creek; and it is found by experience that these devices fully answer the most sanguine expectations, as now Wood creek is rendered

at least equal to any part of the navigation between thence and Schenectady. There is a lock at each extremity of the canal, the one of ten feet lift, and the other of eight feet. Five handsome and substantial bridges are constructed over the canal and feeder.

Wood creek has been considerably improved by cutting through several isthmuses so as to shorten the distance near seven miles, and also by the removal of the timber, which had fallen into it in such quantities as almost altogether to obstruct the navigation.

The channel of the Mohawk below Fort Schuyler being in the same situation, a party of men were employed the last summer in removing these obstacles, and considerable progress was made therein. The most difficult part is cleared, extending from the canal to Six Mile creek; the remaining part from the last-mentioned place to the German Flats will be finished the present year. At the German Flats a canal has been commenced for the purpose of avoiding two bad rapids, known commonly by the names of Wolf's and Orendorff's rifts; the cutting is nearly completed, and the whole will be so far advanced as to admit the passage of boats in a few months. At the west end a guard lock will be placed, similar in form, and for the same purpose as that at the Little Falls, before described. At the east end the boats will pass through another lock of twelve feet fall into very good water which continues to the canal at the falls, a distance of nearly five miles. Above the guard lock, and at the head of Wolf rift, a dam will be thrown across the Mohawk, so as to raise the water thereof three feet, which will materially improve the navigation above, by affording a sufficient depth of water over the shallows opposite to Aldridge's and Fort Herkimer.

The next object to which the directors mean to bend their attention, is the clearing the bed of the river below the Little Falls, from the rocks, stones, sandbars, and other obstacles, which at present so greatly interrupt the navigation. The work commenced late last season, and considerable progress was made in blowing up the large massy rocks, which rendered the passage of the Haycock rapid so

dangerous. The work will be resumed as soon as the waters subside, and will progress regularly downwards.

The directors, aware of the difficulty of improving effectually the river from Schoharie to Schenectady, directed their engineer to survey the southern shore to determine the most eligible route for a canal, and to make an estimate of the expense that would attend the execution; and, as an opinion had been entertained that the line might be extended to Albany by preserving the level from Schoharie creek to the vicinity of Schenectady (which it was imagined was sufficiently elevated to surmount the intermediate ground between the two places), the directors, always willing to promote every object that has in view the public good, further directed their engineer to ascertain the practicability of the measure. From his report it appears that the summit ground between Albany and Schenectady is elevated one hundred and forty-five feet above the surface of the Mohawk at Claus Veele's, three miles above the last-mentioned place; and that the rise from thence to Schoharie is only seventy-one feet; consequently the depth to be cut through for some miles would have been nearly seventy-four feet, which sufficiently proves the impracticability of the plan. If even the level from Schoharie creek could be kept, which, on account of rocky mountains and deep ravines would be next to impossible, and although a canal may be drawn along the southern shore of the Mohawk from Schoharie to Schenectady, yet from the length of the line, and the nature of the ground it must pass through, the expense of execution would be so great, that the directors are of opinion that the present trade of the country would not warrant their undertaking a work of such magnitude. They have, therefore, determined to confine their operations to the bed of the river, and to make such improvements therein as it is susceptible of.

With respect to the improvements to the westward of Fort Schuyler, the directors beg leave to observe, that from the outlet of the Oneida lake to the south end of the Cayuga lake, nature has done so much that little is left for art to accomplish. The few obstructions necessary to be removed

may be effected in the course of one summer, and at a very moderate expense; which, when completed, would form a navigation from Schenectady westward of near two hundred and eighty miles in extent, and through a tract of country, perhaps, on the whole, unrivalled in point of fertility. The immense advantages that must result from the accomplishment of this great object, both to the western and southern parts of the State, are too striking to escape the attention of a mind the least informed.

The communication with Lake Ontario by the Onondaga river, although at present so eligible as to need little improvement as far as the falls (twelve miles from Lake Ontario) is from thence to the lake so interrupted by an almost continued series of rapids, and the adjacent shores being high, steep, and chiefly of solid rock, will render the cutting of a canal on the adjacent shore absolutely impracticable. The only mode will therefore be improvements in the bed of the river by means of dams and locks, unless some more eligible route can be discovered for a communication between the Lakes Oneida and Ontario; and it has been suggested that the country intermediate between Rotterdam on Lake Oneida, and that part of Lake Ontario where Salmon river falls into it, is such that a canal may be drawn across. The sources of two rivulets, which discharge themselves in different directions into the respective lakes at the above-mentioned places, are very near to each other; if, on examination, it should appear that when united they are sufficiently copious to supply the summit level, and the ground should prove favorable, there can be little doubt but it would be the most eligible line of communication. If the harbor at the mouth of Salmon river is equally good with that at Oswego for vessels navigating the lake, the length would not probably exceed eighteen miles, which is thirty miles shorter than by the Onondaga river. It is not possible to form any idea of the lockage on either route until an actual survey has been made; which it is the intention of the directors to cause to be done the first convenient opportunity.

The directors would beg leave further to represent to the Legislature that some alterations and amendments to the existing laws in respect to the said company have become necessary or expedient.

From the preceding statement of the exertions of the company, and the progress they have made, it must be obvious that no unnecessary delay is to be imputed to them; and they therefore respectfully solicit an extension of the term of five years, allowed by the act of the 30th March, 1792, for completing the navigation between Schenectady and the Wood creek to the further term of five years, to be computed from the 1st day of January last.

Large sums of money have already been expended by the company in removing trees out of the bed of the river Mohawk and Wood creek, which had either accidentally fallen therein from its banks or were intentionally cut down and drawn therein for the purpose of clearing the adjacent ground; of the latter an immense number have been brought into the river subsequent to the commencement of the operations for removing those there out, which had previously obstructed the navigation. To remedy this inconvenience in future, the directors respectfully represent that it would conduce to the attainment of the beneficial ends of the establishment if such further legislative provision was made in the premises as would enable them or their agents to cut down the trees on the banks of the Mohawk, Wood creek, the other streams through which their improvement may be carried to the distance of two perches from the banks; and to draw and lay upon the shores such of the water-soaked timber, which, when raised from the bed of those streams, will not float down the same; and either to burn or preserve the timber so cut down or taken out for the use of the respective proprietors of the soil where the same is cut or laid at the option of the latter.

The directors have also found by experience that the mode pointed out by the seventh section of the same act, for ascertaining the value of lands to be taken by the company for the necessary accomplishment of their works, is in some respects extremely injurious and expensive, and that justice

requires some amelioration of its provisions. One instance has occurred in which the jury assessed the damages of the individual at *one dollar*, and the costs incurred by the company were *three hundred and seventy-five dollars.* They would, therefore, respectfully submit to the Legislature the propriety of altering the law in such a manner that the process for ascertaining the damages, when the parties cannot agree, may be more expeditious, less expensive, and equally just in its effects. And the directors respectfully submit, whether a provision similar to that instituted for ascertaining the damages to be paid by the corporation of the city of Albany in prosecuting the works requisite to supply the said city with water would not be an eligible provision.

The company have expended in improving the bed of the Mohawk, in straightening and improving Wood creek, in completing the locks and canals at Fort Schuyler, the canal and locks at the Little Falls, and upon the canal at the German Flats, about $209,357.

The directors apprehend the expenditures this year will cost about $50,000.

The requisitions on the stockholders for the year past have not been sufficient to defray all the expenses which have accrued, and the directors have been under the necessity of borrowing $39,950; besides which sum, they are indebted to the State $37,500.

About one hundred and fifty shares remain on hand, as forfeited by former stockholders, or unsubscribed, and considering how deeply interested the State at large is in the success of so extensive a plan of inland navigation, the directors apprehend the Legislature would be induced to take the aforesaid shares at the same rate as the shares are held by the present stockholders. The sum required will be sixty pounds each share, and subject to the future requisition of the directors. This proposal being acceded to by the Legislature, the directors will be enabled to prosecute the works with vigor; but should it be rejected, they apprehend the money that may be required will be difficult to be raised from the stockholders, and in consequence further

operations arrested for the present year, whereby the minds of the public and individuals will be much discouraged.

It would be proper to state to the Legislature that the tolls received in 1797 at the Little Falls was $2,871.49, and that after this year the directors expect to receive at that place for tolls $6,000, on account of the canal and locks at German Flats, and improvements made in the river; and the canal at Fort Schuyler they expect will produce $4,000. That, on the whole, they hope, after the present year, the company will be enabled to make a dividend of four per cent. on their capital.

The directors, in justice to their engineer, beg leave to remark that they have the greatest confidence in his abilities, and as a person of such singular qualifications is exceedingly difficult to be obtained, the directors are fearful that if the work should be arrested for want of funds, they may lose the opportunity of availing themselves of his services; a loss they cannot calculate, as years may elapse before, if ever, they may be able to procure a person possessed of such handsome qualifications.

Complaints have prevailed that the toll established for the passage of boats and their cargoes through the canal connecting the waters of the Mohawk with Wood creek was extravagantly high; the directors have therefore deemed it necessary to subjoin to this report a statement comparing the present with the former expense of transportation over the carrying place at Fort Schuyler, with some observations pertinent to the subject.

By order of the Board of Directors of the 16th of February, 1798.

PH. SCHUYLER, *President.*

THE
CANAL MEMORIAL
OF 1816

NEW YORK'S

CANAL MEMORIAL OF 1816[1]

MEMORIAL OF THE CITIZENS OF NEW YORK, IN FAVOUR OF A CANAL NAVIGATION BETWEEN THE GREAT WESTERN LAKES AND THE TIDE-WATERS OF THE HUDSON.

To the Legislature of the State of New-York:

The memorial of the subscribers, in favour of a canal navigation between the great western lakes and the tide-waters of the Hudson, most respectfully represents:

That they approach the Legislature with a solicitude proportioned to the importance of this great undertaking, and with a confidence founded on the enlightened public spirit of the constituted authorities. If, in presenting the various considerations which have induced them to make this appeal, they should occupy more time than is usual on common occasions, they must stand justified by the importance of the object. Connected as it is with the essential interests of our country, and calculated in its commencement to reflect honour on the State, and in its com-

1. In volume XII of these Publications, page 86, note is made of the Memorial of the citizens of New York State addressed to the Legislature. It may well be called the most important document in the early history of the State canals, if not, indeed, in all the canal history. As Senator Hill says, it is "worthy of perusal by this and subsequent generations." Drafted by DeWitt Clinton and signed by many citizens of the State, it made a deep impression on the Legislature to which it was submitted Feb. 16, 1816. There can be little doubt that it was this Memorial which committed New York State to its great canal policy.

In Buffalo the Memorial was first printed in the *Gazette* of February 6, 1816. The same issue of the *Gazette* contained the following notice:

"COUNTY MEETING—The inhabitants of the County of Niagara are hereby notified that a meeting will be held at the house of G. Kibbee's in the

pletion to exalt it to an elevation of unparalleled prosperity, your memorialists are fully persuaded that centuries may pass away before a subject is again presented so worthy of all your attention, and so deserving of all your patronage and support.

The improvement of the means of intercourse between different parts of the same country has always been considered the first duty and the noblest employment of Government. If it be important that the inhabitants of the same country should be bound together by a community of interests, and a reciprocation of benefits; that agriculture should find a sale for its productions; manufacturers a vent for their fabrics; and commerce a market for its commodities: it is your incumbent duty to open, facilitate, and improve internal navigation. The preëminent advantages of canals have been established by the unerring test of experience. They unite cheapness, celerity, and safety, in the transportation of commodities. It is calculated that the expense of transporting on a canal amounts to one cent a ton per mile, or one dollar a ton for one hundred miles; while the usual cost by land conveyance is one dollar and sixty cents per hundredweight, or thirty-two dollars a ton for the same distance. The celerity and certainty of this

---

village of Buffalo on Thursday the 15th inst., at 4 p. m., for the purpose of considering the subject of internal navigation. February 5."

Of this meeting, which was apparently the first organized movement in Buffalo in behalf of canal improvement, no report is known to exist. The *Gazette* may have contained a report, but no copy of the *Gazette* after February 6th is known to exist until the issue of February 27th. In the issue for that date is printed "The petition of the inhabitants of the County of Niagara" to the Legislature, setting forth their views on the subject of the Memorial. This petition was evidently the formal result of the meeting at G. Kibbee's [?Kibbe's] and may be considered the first official expression of Buffalo's citizens in the canal matter. It fills about one column of the old newspaper. A brief extract or two will sufficiently indicate its character:

"We are prompted," say the petitioners, "as well by considerations of public utility as of individual prosperity, to unite our voice with that which has gone forth from almost every part of the community. . . . . We believe that the best interests of the State require that the contemplated canal should run as direct as possible from Lake Erie to the Hudson. Much has been said of locking the Falls of Niagara, but we are persuaded that if this project could be effected it would be the means of pouring into the markets

mode of transportation are evident. A loaded boat can be towed by one or two horses at the rate of thirty miles a day. Hence, the seller or buyer can calculate with sufficient precision on his sales or purchases, the period of their arrival, the amount of their avails, and the extent of their value. A vessel on a canal is independent of winds, tides, and currents, and is not exposed to the delays attending conveyances by land; and with regard to safety, there can be no competition. The injuries to which commodities are exposed when transported by land, and the dangers to which they are liable when conveyed by natural waters, are rarely experienced on canals. In the latter way, comparatively speaking, no waste is incurred, no risk is encountered, and no insurance required. Hence, it follows, that canals operate upon the general interests of society, in the same way that machines for saving labour do in manufactures; they enable the farmer, the mechanic, and the merchant, to convey their commodities to market, and to receive a return, at least thirty times cheaper than by roads. As to all the purposes of beneficial communication, they diminish the distance between places, and therefore encourage the cultivation of the most extensive and remote parts of the country. They create new sources of internal

---

of the Canadas the surplus products of nearly the whole western country and of depriving our own cities of the vast benefits of the western trade. . . . . We believe that the contemplated canal would ultimately increase the wealth and power of the State almost beyond the reach of calculation. That it would have a tendency greatly to strengthen the most important frontier of the State, the frontier on which we live, there can hardly be a doubt. This country being at one extremity of the canal, would, we conceive, become a point where great wealth and a numerous population would naturally concentrate. It would of course present a powerful barrier to our neighbors on the opposite shore of the Niagara should we at any future period be involved in a war with their parent country.

"The melancholy experience of the late war has effectually taught us that our hopes of security must rest upon strength. The safety of the interior of any State or nation depends in a great measure upon the capability of its frontiers to resist and repeal aggression."

This petition is dated "Niagara County, 22 February, 1816," the date suggesting that the citizens of Buffalo in that year marked Washington's birthday by a canal meeting which authorized this petition, but of which no detailed report is known to exist, nor are the names of the citizens who may have signed it appended to it as printed in the *Gazette*.

trade, and augment the old channels; for the more cheap the transportation, the more expanded will be its operation; and the greater the mass of the products of the country for sale, the greater will be the commercial exchange of returning merchandize, and the greater the encouragement to manufacturers, by the increased economy and comfort of living, together with the cheapness and abundance of raw materials; and canals are consequently advantageous to towns and villages, by destroying the monopoly of the adjacent country, and advantageous to the whole country; for though some rival commodities may be introduced into the old markets, yet many markets will be opened by increasing population, enlarging old and erecting new towns, augmenting individual and aggregate wealth, and extending foreign commerce.

The prosperity of ancient Egypt, and China, in a great degree may be attributed to their inland navigation. With little foreign commerce, the former of those countries, by these means, attained, and the latter possesses a population and opulence in proportion to their extent, unequalled in any other. And England and Holland, the most commercial nations of modern times, deprived of their canals, would lose the most prolific source of their prosperity and greatness. Inland navigation is in fact to the same community what exterior navigation is to the great family of mankind. As the ocean connects the nations of the earth by the ties of commerce and the benefits of communication, so do lakes, rivers and canals operate upon the inhabitants of the same country; and it has been well observed that, "were we to make the supposition of two states, the one having all its cities, towns and villages upon navigable rivers and canals, and having an easy communication with each other; the other possessing the common conveyance of land carriage, and supposing both states to be equal as to soil, climate, and industry: commodities and manufactures in the former State might be furnished 30 per cent. cheaper than in the latter; or, in other words, the first State would be a third richer and more affluent than the other."

The general arguments in favour of inland navigation apply with peculiar force to the United States, and most emphatically to this State. A geographical view of the country will at once demonstrate the unexampled prosperity that will arise from our cultivating the advantages which nature has dispensed with so liberal a hand. A great chain of mountains passes through the United States, and divides them into eastern and western America. In various places, rivers break through these mountains, and are finally discharged into the ocean. To the west there is a collection of inland lakes, exceeding in its aggregate extent some of the most celebrated seas of the old world. Atlantic America, on account of the priority of its settlement, its vicinity to the ocean, and its favourable position for commerce, has many advantages. The western country, however, has a decided superiority in the fertility of its soil, the benignity of its climate, and the extent of its territory. To connect these great sections by inland navigation, to unite our Mediterranean seas with the ocean, is evidently an object of the first importance to the general prosperity. Nature has effected this in some measure; the St. Lawrence emanates from the lakes, and discharges itself into the ocean in a foreign territory. Some of the streams which flow into the Mississippi originate near the Great Lakes, and pass round the chain of mountains. Some of the waters of this State which pass into Lake Ontario approach the Mohawk; but our Hudson has decided advantages. It affords a tide navigation for vessels of eighty tons to Albany and Troy, 160 miles above New York, and this peculiarity distinguishes it from all the other bays and rivers in the United States, etc.

The tide in no other ascends higher than the Granite Ridge, or within thirty miles of the Blue Ridge, or eastern chain of mountains. In the Hudson it breaks through the Blue Ridge, and ascends above the eastern termination of the Catskill, or great western chain; and there are no interposing mountains to prevent a communication between it and the Great Western Lakes.

The importance of the Hudson River to the old settled parts of this State may be observed in the immense wealth which is daily borne on its waters, in the flourishing villages and cities on its banks, and in the opulence and prosperity of all the country connected with it, either remotely or immediately. It may also be readily conceived, if we only suppose that by some awful physical calamity, some overwhelming convulsion of nature, this great river was exhausted of its waters; where then would be the abundance of our markets, the prosperity of our farmers, the wealth of our merchants? Our villages would become deserted, our flourishing cities would be converted into masses of mouldering ruins, and this State would be precipitated into poverty and insignificance. If a river or natural canal, navigable about 170 miles, has been productive of such signal benefits, what blessings might not be expected if it were extended through the most fertile country in the universe, and united with the great seas of the West!

The contemplated canal would be this extension; and viewed in reference only to the productions and consumptions of the State, would perhaps convey more riches on its waters than any other canal in the world. Connected with the Hudson, it might be considered as a navigable stream that extends 450 miles through a fruitful country, embracing a great population, and abounding with all the productions of industry. If we were to suppose all the rivers and canals in England and Wales, combined into one, and discharging into the ocean at a great city, after passing through the heart of that country, then we can form a distinct idea of the importance of the projected canal; but it indeed comprehends within its influence a greater extent of territory, which will in time embrace a greater population. If this work be so important when we confine our views to the State alone, how unspeakably beneficial must it appear, when we extend our contemplations to the Great Lakes, and the country affiliated with them? Waters extending 2,000 miles from the beginning of the canal, and a country containing more territory than all Great Britain and Ireland, and at least as much as France!

While we do not pretend that all the trade of our western world will centre in any given place, nor would it be desirable if it were practicable, because we sincerely wish the prosperity of all the states; yet we contend that our natural advantages are so transcendant, that it is in our power to obtain the greater part, and put successful competition at defiance. As all the other communications are impeded by mountains, the only formidable rivals of New York, for this great prize, are New Orleans and Montreal, the former relying on the Mississippi and the latter on the St. Lawrence.

In considering this subject, we will suppose the commencement of the canal somewhere near the outlet of Lake Erie.

The inducements for preferring one market to another, involve a variety of considerations: the principal are the cheapness and facility of transportation, and the goodness of the market. If a cultivator or manufacturer can convey his commodities with the same ease and expedition to New York, and obtain a higher price for them than at Montreal or New Orleans, and at the same time supply himself at a cheaper rate with such articles as he may want in return, he will undoubtedly prefer New York. It ought also to be distinctly understood that a difference in price may be equalized by a difference in the expense of conveyance, and that the vicinity of the market is at all times a consideration of great importance.

From Buffalo, at or near the supposed commencement of the canal, it is 450 miles to the city of New York, and from that city to the ocean twenty miles. From Buffalo to Montreal, 350 miles; from Montreal to the chops of the St. Lawrence, 450. From Buffalo to New Orleans by the Great Lakes, and the Illinois River, 2,250 miles; from New Orleans to the Gulf of Mexico, 100. Hence, the distance from Buffalo to the ocean, by the way of New York, is 470 miles; by Montreal, 800; and by New Orleans, 2,350.

As the Upper Lakes have no important outlet but into Lake Erie, we are warranted in saying that all their trade must be auxiliary to its trade, and that a favourable com-

munication by water from Buffalo will render New York the great depot and warehouse of the western world.

In order, however, to obviate all objections that may be raised against the place of comparison, let us take three other positions: Chicago, near the southwest end of Lake Michigan, and of a creek of that name, which sometimes communicates with the Illinois, the nearest river from the Lakes to the Mississippi; Detroit, on the river of that name, between Lakes St. Clair and Erie; and Pittsburgh, at the confluence of the Alleghany and Monongahela rivers, forming the head of the Ohio, and communicating with Le Boeuf by water, which is distant fifteen miles from Lake Erie.

The distance from Chicago to the ocean, by New York, is about 1,200 miles. From Detroit to the ocean, pursuing the nearest route by Cleveland, down the Muskingum, 2,400 miles. The distance from Pittsburgh to the ocean, by Le Boeuf, Lake Erie, Buffalo, and New York, is 700 miles. The same to the ocean by the Ohio and Mississippi, 2,150 miles.

These different comparative views show that New York has, in every instance, a decided advantage over her great rivals. In other essential respects, the scale preponderates equally in her favour. Supposing a perfect equality of advantages as to the navigation of the Lakes, yet from Buffalo, as the point of departure, there is no comparison of benefits. From that place the voyager to Montreal has to encounter the inconveniences of a portage at the cataract of Niagara, to load and unload at least three times, to brave the tempests of Lake Ontario and the rapids of the St. Lawrence.

In like manner the voyager to New Orleans has a portage between the Chicago and Illinois, an inconvenient navigation on the latter stream, besides the well-known obstacles and hazards of the Mississippi. And until the invention of steamboats, an ascending navigation was considered almost impracticable. This convenience is, however, still forcibly experienced on that river, as well as on the St. Lawrence, between Montreal and Lake Ontario.

The navigation from Lake Erie to Albany can be completed in ten days with perfect safety on the canal; and from Albany to New York there is the best sloop navigation in the world.

From Buffalo to Albany a ton of commodities could be conveyed, on the intended canal, for $3.00, and from Albany to New York, according to the present prices of sloop transportation, for $2.80, and the return cargoes would be the same.

We have not sufficient data upon which to predicate very accurate estimates with regard to Montreal and New Orleans; but we have no hesitation in saying that the descending conveyance to the former would be four times the expense, and to the latter at least ten times, and that the cost of the ascending transportation would be greatly enhanced.

It has been stated by several of the most respectable citizens of Ohio that the present expense of transportation by water from the city of New York to Sandusky, including the carrying places, is $4.50 per hundred, and allowing it to cost $2.00 per hundred for transportation to Clinton, the geographical centre of the State, the whole expense would be $6.50, which is only 50 cents more than the transportation from Philadelphia to Pittsburgh, and at least $2.50 less than the transportation by land and water from these places; and that, in their opinion, New York is the natural emporium of that trade, and that the whole commercial intercourse of the western country north of the Ohio will be secured to her by the contemplated canal.

In addition to this, it may be stated that the St. Lawrence is generally locked up by ice seven months in the year, during which time produce lies a dead weight on the hands of the owner; that the navigation from New York to the ocean is at all times easy, and seldom obstructed by ice, and that the passage from the Balize to New Orleans is tedious; that perhaps one out of five of the western boatmen who descend the Mississippi become victims to disease; and that many important articles of western production are injured or destroyed by the climate. New York

is, therefore, placed in a happy medium between the insalubrious heat of the Mississippi and the severe cold of the St. Lawrence. She has also preëminent advantages as to the goodness and extensiveness of her market. All the productions of the soil, and the fabrics of art, can command an adequate price, and foreign commodities can generally be procured at a lower rate. The trade of the Mississippi is already in the hands of her merchants, and although accidental and transient causes may have concurred to give Montreal an ascendency in some points, yet the superiority of New York is founded in nature, and if improved by the wisdom of Government, must always soar above competition.

Granting, however, that the rivals of New York will command a considerable portion of the western trade, yet it must be obvious, from these united considerations, that she will engross more than sufficient to render her the greatest commercial city in the world. The whole line of canal will exhibit boats loaded with flour, pork, beef and pearl ashes, flaxseed, wheat, barley, corn, hemp, wool, flax, iron, lead, copper, salt, gypsum, coal, tar, fur, peltry, ginseng, beeswax, cheese, butter, lard, staves, lumber, and the other valuable productions of our country; and also with merchandize from all parts of the world. Great manufacturing establishments will spring up; agriculture will establish its granaries, and commerce its warehouses in all directions. Villages, towns and cities will line the banks of the canal and the shores of the Hudson from Erie to New York. "The wilderness and the solitary place will become glad, and the desert will rejoice and blossom as the rose."

While it is universally admitted that there ought to be a water communication between the Great Lakes and the tidewaters of the Hudson, a contrariety of opinion, greatly to be deplored, as tending to injure the whole undertaking, has risen with respect to the route that ought to be adopted. It is contended on the one side that the canal should commence in the vicinity of the outlet of Lake Erie, and be carried in the most eligible direction across the country to the headwaters of the Mohawk River at Rome, from

whence it should be continued along the valley of the Mohawk to the Hudson. It is, on the other side, insisted that it should be cut around the cataract of Niagara; that Lake Ontario should be navigated to the mouth of the Oswego River; that the navigation of that river, and Wood Creek, should be improved and pursued until the junction of the latter with the Mohawk at Rome. As to the expediency of a canal from Rome to the Hudson, there is no discrepance of opinion; the route from Rome to the Great Lakes constitutes the subject of controversy.

If both plans were presented to the Legislature, as worthy of patronage, and if the advocates of the route by Lake Ontario did not insist that their schemes should be exclusive and, of course, that its adoption should prove fatal to the other project, this question would not exhibit so serious an aspect. If two roads are made, that which is most accommodating will be preferred; but if only one is established, whether convenient or inconvenient to individuals, beneficial or detrimental to the public, it must necessarily be used. We are so fully persuaded of the superiority of the Erie Canal that although we should greatly regret so useless an expenditure of public money as making a canal round the cataract of Niagara, yet we should not apprehend any danger from the competition of Montreal, if the former were established.

An invincible argument in favour of the Erie Canal is, that it would diffuse the blessings of internal navigation over the most fertile and populous parts of the State, and supply the whole community with salt, gypsum, and in all probability coal. Whereas, the Ontario route would accommodate but an inconsiderable part of our territory, and instead of being a great highway, leading directly to the object, it would be a circuitous by-road, inconvenient in all essential respects.

The most serious objection against the Ontario route is that it will inevitably enrich the territory of a foreign power, at the expense of the United States. If a canal is cut round the falls of Niagara, and no countervailing nor counteracting system is adopted in relation to Lake Erie,

the commerce of the West is lost to us forever. When a vessel once descends into Lake Ontario she will pursue the course ordained by nature. The British Government are fully aware of this, and are now taking the most active measures to facilitate the passage down the St. Lawrence.

It is not to be concealed that a great portion of the productions of our western country are now transported to Montreal, even with all the inconveniences attending the navigation down the Seneca and Oswego rivers; but if this route is improved in the way proposed, and the other not opened, the consequences will be most prejudicial. A barrel of flour is now transported from Cayuga Lake to Montreal for $1.50, and it cannot be conveyed to Albany for less than $2.50. This simple fact speaks a volume of admonitory instruction.

But taking it for granted that the Ontario route will bring the commerce of the West to New York, yet the other ought to be preferred, on account of the superior facilities it affords.

In the first place, it is nearer. The distance from Buffalo to Rome is less than 200 miles in the course of the intended canal; by Lake Ontario and Oswego, it is 232.

Second. A loaded boat could pass from Buffalo to Rome by the Erie route in less than seven days, and with entire safety. By the Ontario route it will be perfectly uncertain, and not a little hazardous. After leaving the Niagara River it would have to pass an inland sea to the extent of 127 miles, as boisterous and as dangerous as the Atlantic. And besides a navigation of at least twenty miles over another lake, it would have to ascend two difficult streams for fifty-five miles; no calculation could then be made, either on the certainty or safety of this complicated and inconvenient navigation.

Third. When a lake vessel would arrive at Buffalo she would have to unload her cargo, and when this cargo arrived at Albany by the Erie Canal, it would be shifted on board of a river sloop in order to be transported to New York. From the time of the first loading on the Great Lakes, to the last unloading at the storehouses in New

York, there would be three loadings and three unloadings on this route.

But when a lake vessel arrived with a view of passing the canal of Niagara, she would be obliged to shift her loading to that purpose, for it would be almost impracticable to use lake vessels on the Niagara River on account of the difficulty of the ascending navigation. At Lewiston, or some other place on the Niagara, another change of the cargo on board of a lake vessel for Ontario would be necessary; at Oswego another, and at Albany another; so that on this route there would be five loadings and five unloadings before the commodities were stored in New York.

This difference is an object of great consequence, and presents the most powerful objections against the Ontario route; for to the delay we must add the accumulated expense of these changes of the cargo, the storage, the waste, and damage, especially by theft, where the chances of depredation are increased by the merchandize passing through a multitude of hands, and the additional lake vessels, boats and men that will be required, thereby increasing in this respect alone the cost two-thirds above that attending the other course. And in general, it may be observed, that the difference between a single and double freight forms an immense saving. Goods are brought from Europe for twenty cents per cubic foot; whereas, the price from Philadelphia to Baltimore is equal to ten cents. This shows how far articles, once embarked, are conveyed with a very small addition of freight; and if such is the difference between a single and a double freight, how much greater must it be in the case under consideration.

If the fall from Lake Erie to Lake Ontario be 450 feet, as stated in Mr. Secretary Gallatin's report on canals, it will require at least forty-five locks for a navigation round the cataract. Whether it would be practicable to accommodate all the vessels which the population and opulence of future times will create in those waters, with a passage through so many locks accumulated within a short distance, is a question well worthy of serious consideration. At all

events, the demurrage must be frequent, vexatious, and expensive.

When we consider the immense expense which would attend the canal proposed on the Niagara River, a canal requiring so many locks, and passing through such difficult ground; when we view the Oswego River from its outlet at Oswego, to its origin in Oneida Lake, encumbered with dangerous rapids and falls, and flowing through a country almost impervious to canal operations; and when we contemplate the numerous embarrassments which are combined with the improvement of Wood Creek, we are prepared to believe that the expense of this route will not greatly fall short of the other.

It is, however, alleged that it is not practicable to make this canal; and that if practicable, the expense will be enormous, and will far transcend the faculties of the State.

Lake Erie is elevated 541 feet above tide waters at Troy. The only higher ground between it and the Hudson is but a few miles from the lake; and this difficulty can be easily surmounted by deep cutting; of course no tunnel will be required. The rivers which cross the line of the canal can be easily passed by aqueducts; on every summit level plenty of water can be obtained; whenever there is a great rise or descent, locks can be erected, and the whole line will not require more than sixty-two; perhaps there is not an equal extent of country in the world which presents fewer obstacles to the establishment of a canal.

The liberality of nature has created the great ducts and arteries, and the ingenuity of art can easily provide the connecting veins. The general physiognomy of the country is champaign, and exhibits abundance of water; a gentle rising from the Hudson to the lake; a soil well adapted for such operations; no impassable hills, and no insurmountable waters. As to distance, it is not to be considered in relation to practicability. If a canal can be made for fifty miles it can be made for three hundred, provided there is no essential variance in the face of the country; the only difference will be that, in the latter case, it will take more time and consume more money.

But this opinion does not rest for its support upon mere speculation. Canals have been successfully cut through more embarrassing ground, in various parts of the United States; and even in part of the intended route from Schenectady to Rome locks have been erected at Little Falls, and at other places; and short canals have been made, and all these operations have taken place in the most difficult parts of the whole course of the contemplated Erie navigation. Mr. William Weston, one of the most celebrated civil engineers in Europe, who has superintended canals in this State and Pennsylvania, and who is perfectly well acquainted with the country, has thus expressed his opinion on this subject: "Should your noble but stupendous plan of uniting Lake Erie with the Hudson be carried into effect, you have to fear no rivalry. The commerce of the immense extent of country, bordering on the upper lakes, is yours forever, and to such an incalculable amount as would baffle all conjecture to conceive. Its execution would confer immortal honour on the projectors and supporters, and would, in its eventual consequences, render New York the greatest commercial emporium in the world, with perhaps the exception at some distant day of New Orleans, or some other depot at the mouth of the majestic Mississippi. From your perspicuous topographical description, and neat plan and profile of the route of the contemplated canal, I entertain little doubt of the practicability of the measure."

With regard to the expense of this work, different estimates will be formed. The commissioners appointed for that purpose were of opinion that it would not cost more than five millions of dollars. On this subject we must be guided by the light which experience affords in analogous cases.

The canal of Languedoc, or canal of the two seas in France, connects the Mediterranean and Atlantic, and is 180 miles in length; it has 114 locks and sluices, and a tunnel 720 feet long. The breadth of the canal is 144 feet, and its depth six feet; it was begun in 1666, and finished in 1681, and cost £540,000 sterling, or £3,000 sterling a mile.

The Holstein Canal, begun in 1777, and finished in 1785, extends about fifty miles; is 100 feet wide at the top and 54 at the bottom, and not less than ten feet deep in any part. Ships drawing nine feet four inches in water pass through it from the German ocean, in the vicinity of Tonningen, into the Baltic. From two to three thousand ships have passed in one year. The expense of the whole work was a little more than a million and a half of dollars, which would be at the rate of $30,000 a mile for this ship navigation.

The extreme length of the canal from the Forth to the Clyde, in Scotland, is 35 miles. It rises and falls 160 feet by means of 39 locks. Vessels pass drawing eight feet of water, having 19 feet beam, and 73 feet length. The cost is calculated at £200,000 sterling, which is at the rate of about $23,000 a mile. But this was a canal for ships drawing eight feet of water, with an extraordinary rise for its length, and having more than one lock for every mile.

The following will give you an idea of the money expended on such works in England:

	Cost.	Miles.
The Rochdale Canal	£291,900	31½
Ellesmere	400,000	57
Kennet and Avon	420,000	78
Grand Junction	500,000	90
Leeds and Liverpool	800,000	129

The miles of canal are 385½, and the cost is £2,411,900 sterling, or about $28,000 per mile.

But in the estimation of the cost of these canals, unquestionably the price of the land over which they pass is included, and this is enormous. The land alone for one canal of sixteen miles is said to have cost £90,000 sterling. With us this would be but small.

If we look at the history of the English canals we shall see how many objects of great expense are connected with them, with which we should have nothing to do, and that most of them have encountered and surmounted obstacles which we should not meet with. For instance, the Grand

Junction Canal passes more than once the great ridge which divides the waters of England; ours will pass over a country which is in comparison champaign.

But it is said that the price of labor in our country is so much above what it is in England that we must add greatly to the cost of her canals in estimating the expense of ours.

But that is certainly a false conclusion, for not only must the price of land and the adventitious objects, which have been before referred to, be deducted from the cost of the foreign canals, but we must consider that there will be almost as great a difference in our favour in the cost of materials and brute labour, as there is in favour of England as to human labour, and it is well known that so much human labour is not now required on canals as formerly. Machines for facilitating excavation have been invented and used with great success.

Mr. Gallatin's report on canals contains several estimates of the cost of contemplated ones. From Weymouth to Taunton, in Massachusetts, the expense of a canal of 26 miles, with a lockage of 260 feet, is set down at $1,250,000. From Brunswick to Trenton, 28 miles, with a lockage of 100 feet, $800,000. From Christiana to Elk, 22 miles, with a lockage of 143 feet, $750,000. From Elizabeth River to Pasquotanck, 22 miles, with a lockage of 40 feet, $250,000. These estimates thus vary from $48,000 to less than $12,000 a mile, and furnish the medium of about $31,000 a mile. But it must be observed that they are for small distances, are calculated to surmount particular obstacles, and contemplate an extraordinary number of locks, and that they do not therefore furnish proper data from which to form correct conclusions with respect to the probable cost of an extensive canal, sometimes running over a great number of miles upon a level without any expense for lockage, or any other expense than the mere earthwork.

Mr. Weston, before mentioned, estimated the expense of a canal from the tidewaters at Troy to Lake Ontario, a distance of 160 miles (exclusive of Lake Oneida), going

round the Cahoos, and embracing 55 locks of three feet lift each, at $2,200,000, a little more than $13,000 a mile.

Fortunately, however, we have more accurate information than mere estimates.

In the appendix to Mr. Gallatin's report it is stated, by Mr. Joshua Gilpin, that "by actual measurement, and the sums paid on the feeder, it was found that one mile on the Delaware and Chesapeake Canal, the most difficult of all others, from its being nearly altogether formed through hard, rocky ground, cost $13,000, and one other mile, perfectly level, and without particular impediment, cost $2,300; from hence, the general average would be reduced to $7,650 per mile."

The Middlesex Canal, in Massachusetts, runs over 28 miles of ground, presenting obstacles much greater than can be expected on the route we purpose. This canal cost $478,000, which is about $17,000 a mile. It contains 22 locks of solid masonry, and excellent workmanship, and to accomplish this work it was necessary to dig in some places to the depth of 20 feet, to cut through ledges of rocks, to fill some valleys and morasses, and to throw several aqueducts across the intervening rivers. One of these across the river Shawshine is 280 feet long and 22 feet above the river.

From the Tonnewanta Creek to the Seneca River is a fall of	195 feet
From thence to the Rome summit is a rise of	50 feet
From thence to the Hudson River is a fall of	380 feet
The whole rise and fall	625 feet

This will require 62 locks of ten feet lift each. The expense of such locks, as experimentally proved in several instances in this State, would be about $620,000.

We have seen that on the Middlesex Canal there are 22 locks for 28 miles, which is a lock for somewhat more than every mile, whereas 62 locks for 300 miles is but about one lock for every five miles; and the lockage of the Middlesex Canal would alone cost $220,000. It would, therefore,

appear to be an allowance perhaps too liberal to consider the cost of it as a fair criterion of the expense of canals in general in this country, and of this in particular. Reservoirs and tunnels are the most expensive part of the operation, and none will be necessary in our whole route. The expense of the whole earthwork of excavating a mile of canal on level ground, 50 feet wide and five feet deep, at 18 cents per cubic yard, and allowing for the cost of forming and trimming the banks, puddling, etc., will not exceed $4,000 per mile, and the only considerable aqueduct on the whole line will be over the Genesee River.

From a deliberate consideration of these different estimates and actual expenditures, we are fully persuaded that this great work will not cost more than $20,000 a mile, or six millions of dollars in the whole; but willing to make every possible allowance, and even conceding that it will cost double that sum, yet still we contend that there is nothing which ought to retard its execution. This canal cannot be made in short time. It will be the work perhaps of ten or fifteen years.

The money will not be wanted at once. The expenditure, in order to be beneficial, ought not to exceed $500,000 a year, and the work may be accomplished in two ways: either by companies incorporated for particular sections of the route, or by the State. If the first is resorted to, pecuniary sacrifices will still be necessary on the part of the public, and great care ought to be taken to guard against high tolls, which will certainly injure if not ruin the whole enterprise.

If the State shall see fit to achieve this great work, there can be no difficulty in providing funds. Stock can be created and sold at an advanced price. The ways and means of paying the interest will be only required. After the first year, supposing an annual expenditure of $500,000, $30,000 must be raised to pay an interest of 6 per cent.; after the second year, $60,000, and so on. At this rate the interest will regularly increase with beneficial appropriation, and will be so little in amount that it may be raised in many shapes without being burdensome to the community.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

In all human probability the augmented revenue proceeding from the public salt works, and the increased price of the State lands in consequence of this undertaking, will more than extinguish the interest of the debt contracted for that purpose. We should take into view the land already subscribed by individuals for this work, amounting to 106,632 acres. These donations, together with those which may be confidently anticipated, will exceed in value a million of dollars, and it will be at all times in the power of the State to raise a revenue from the imposition of transit duties, which may be so slight as scarcely to be felt, and yet the income may be so great as in a short time to extinguish the debt, and this might take effect on the completion of every important section of the work.

If the Legislature shall consider this important project in the same point of view, and shall unite with us in opinion, that the general prosperity is intimately and essentially involved in its prosecution, we are fully persuaded that now is the proper time for its commencement. Delays are the refuge of weak minds, and to procrastinate on this occasion is to show a culpable inattention to the bounties of nature; a total insensibility to the blessings of Providence, and an inexcusable neglect of the interests of society. If it were intended to advance the views of individuals, or to foment the divisions of party; if it promoted the interests of a few, at the expense of the prosperity of the many; if its benefits were limited as to place, or fugitive as to duration, then indeed it might be received with cold indifference, or treated with stern neglect; but the overflowing blessings from this great fountain of public good and national abundance, will be as extensive as our country, and as durable as time.

The considerations which now demand an immediate, and an undivided attention to this great object, are so obvious, so various, and so weighty, that we shall only attempt to glance at some of the most prominent.

In the first place, it must be evident that no period could be adopted in which the work can be prosecuted with less expense. Every day augments the value of the land

through which the canal will pass; and when we consider the surplus hands which have been recently dismissed from the army into the walks of private industry, and the facility with which an addition can be procured to the mass of our active labour, in consequence of the convulsions of Europe, it must be obvious that this is now the time to make those indispensable acquisitions.

Second. The longer this work is delayed, the greater will be the difficulty in surmounting the interests that will rise up in opposition to it. Expedients on a contracted scale have already been adopted for the facilitation of intercourse. Turnpikes, locks, and short canals have been resorted to, and in consequence of those establishments, villages have been laid out and towns have been contemplated. To prevent injurious speculation, to avert violent opposition, and to exhibit dignified impartiality and paternal affection to your fellow-citizens, it is proper that they should be notified at once of your intentions.

Third. The experience of the late war has impressed every thinking man in the community with the importance of this communication. The expenses of transportation frequently exceeded the original value of the article, and at all times operated with injurious pressure upon the finances of the nation. The money thus lost for the want of this communication would perhaps have defrayed more than one-half of its expense.

Fourth. Events which are daily occurring on our frontiers demonstrate the necessity of this work. Is it of importance that our honourable merchants should not be robbed of their legitimate profits; that the public revenues should not be seriously impaired by dishonest smuggling, and that the commerce of our cities should not be supplanted by the mercantile establishments of foreign countries? Then it is essential that this sovereign remedy for maladies so destructive and ruinous should be applied. It is with inconceivable regret we record the well-known fact that merchandize from Montreal has been sold to an alarming extent on our borders for 15 per cent. below the New York prices.

Fifth. A measure of this kind will have a benign tendency in raising the value of the national domains, in expediting the sale, and enabling the payment. Our national debt may thus, in a short time, be extinguished. Our taxes of course will be diminished, and a considerable portion of revenue may then be expended in great public improvements; in encouraging the arts and sciences; in patronizing the operations of industry; in fostering the inventions of genius, and in diffusing the blessings of knowledge.

Sixth. However serious the fears which have been entertained of a dismemberment of the Union by collisions between the North and the South, it is to be apprehended that the most imminent danger lies in another direction, and that a line of separation may be eventually drawn between the Atlantic and the western states, unless they are cemented by a common, an ever-acting, and a powerful interest. The commerce of the ocean, and the trade of the lakes, passing through one channel, supplying the wants, increasing the wealth, and reciprocating the benefits of each great section of the empire, will form an imperishable cement of connection, and an indissoluble bond of union. New York is both Atlantic and western; and the only State in which this union of interests can be formed and perpetuated, and in which this great centripetal power can be energetically applied. Standing on this exalted eminence, with power to prevent a train of the most extensive and afflicting calamities that ever visited the world (for such a train will inevitably follow a dissolution of the Union), she will justly be considered an enemy to the human race, if she does not exert for this purpose the high faculties which the Almighty has put into her hands.

Lastly, it may be confidently asserted that this canal, as to the extent of its route, as to the countries which it connects, and as to the consequences which it will produce, is without a parallel in the history of mankind. The union of the Baltic and the Euxine; of the Red Sea and the Mediterranean; of the Euxine and the Caspian; and of the Mediterranean and the Atlantic, has been projected or executed by the chiefs of powerful monarchies, and the splendour of

the design has always attracted the admiration of the world. It remains for a free state to create a new era in history, and to erect a work more stupendous, more magnificent, and more beneficial than has hitherto been achieved by the human race. Character is as important to nations as to individuals, and the glory of a republic, founded on the promotion of the general good, is the common property of all its citizens.

We have thus discharged with frankness and plainness, and with every sentiment of respect, a great duty to ourselves, to our fellow-citizens, and to posterity, in presenting this subject to the fathers of the commonwealth. And may that Almighty Being in whose hands are the destinies of states and nations, enlighten your councils and invigorate your exertions in favour of the best interests of our beloved country.

HISTORICAL SKETCH OF

THE BOARD OF TRADE

THE MERCHANTS' EXCHANGE AND THE CHAMBER OF COMMERCE OF BUFFALO

By FRANK H. SEVERANCE

HISTORICAL SKETCH OF THE

BUFFALO BOARD OF TRADE

THE MERCHANTS' EXCHANGE AND THE CHAMBER OF COMMERCE

By FRANK H. SEVERANCE

I. Beginnings of Commercial Union in Buffalo.

Whoever seeks for landmarks in an American city is apt to seek in vain. Save perhaps in Boston, which has always held to certain Old World habits, and to some degree in a few other eastern communities, the tendency of the American town is to destroy before its structures may fairly be called middle-aged. Flimsy construction and the sweep of fires aid this tendency. Even if spared conflagration, the fever for "improvement" consumes the old, tears down and rebuilds, practically with each new generation. Even the burial-grounds, the resting-places of the forefathers, which of all places it would seem should be left in decorous quiet, secure from the advance of "improvement," are removed and obliterated with as little concern as though they had never been consecrated to peace.

These changes are not after all distinctively American, as any one knows who has searched say in London or Paris for streets and buildings of which he has read in history. Growth, anywhere, implies destruction; and the new is bound to supplant the old. In most large American towns, expanding according to more or less haphazard plans, the

periods of rapid growth can be noted not only by the absence of landmarks, but by the obliteration even of sites.

No city shows these peculiarities more markedly than Buffalo. For a hundred years we have been changing not only the names of our streets, but in very many cases, the streets themselves. The primitive village that Father Ellicott plotted encroached upon the forest to the north only as far as Chippewa Street; easterly it stopped at Elm, and its westerly boundary was the curving line of the State reservation, coming to the river at the foot of Genesee Street. The village really stopped at the high bluff of the Terrace, below which were swamp and sand wastes. For say a score of years after the village of New Amsterdam was born, the region below the high natural bluff of the Terrace was of little account. Then came the Erie Canal — or as they called it then, the Great Western Canal. Long before construction reached Buffalo, the vast project had precipitated a strife between Buffalo and Black Rock, for the canal terminus. Thanks to the energy of Judge Samuel Wilkeson and his supporters, Buffalo was made the terminus, the harbor was dug out, and the big ditch of the canal was cut straight through the waste lands under the Terrace. Sundry squatters were ousted, a few old warehouses were torn down, and numerous new streets, for the most part narrow and near together, appeared.

Erie Street, laid out by the Holland Land Company as Vollenhoven Avenue, ran from Main Street at "the Churches" to Buffalo Creek near its mouth. Prior to the canal construction, the only other thoroughfare in those low grounds was the old beach road, which, turning off from what is now lower Main Street, followed the right or westerly bank of Little Buffalo Creek to the Big Buffalo, thence proceeded irregularly to the old ferry at Black Rock. This was a very old route — an Indian path in the pre-historic days and a much-used road prior to and during the War of 1812. Before the mouth of Big Buffalo Creek — then called "Big" to distinguish it from the "Little," which was an important stream in the early village economy — was dredged and the bar removed, sail craft were wont to come to, off

the mouth of the creek, and disembark by row-boats. British troops, prior to 1796, and American troops in later years, were accustomed to row up Buffalo Creek to the Little Buffalo, thence up that to a landing-place on the right (or west) bank, from which point they could march or ride in wagons up the hill to the site of Buffalo; or, as was more often the case, follow the shore road among the sand dunes to the old Black Rock ferry. One of the earliest Buffalo pictures shows such a landing of troops at this point.

When the great canal was dug old Water Street, as this road came to be called, increased in importance, and that part of it which skirted Little Buffalo Creek became known as Canal Street, and extended to the Terrace. This must not be confused with the notorious Canal Street of later days, which under the names of Rock Street and Cross Street, came into existence after the canal was opened. In still later years, when the upper reach of Little Buffalo, within the city, was lost in the construction of the canal extension known as the Main and Hamburg, this lower part of the stream, west of Main, became Commercial Slip, and the street bordering it became Commercial Street, which name it still bears. It was no misnomer, in the '30's and '40's, for not only that street, but others in the neighborhood, were very much alive with the business of the growing town and port.

In 1825, while the great heaps of earth were still being thrown up from the unfinished canal cut, and here and there used to fill low places, the village fathers extended old Water Street across the Little Buffalo. Four years later it was laid out to Main, and in 1832—the year the village became a city—this street was established as Prime, from Lloyd to Canal (now Commercial). It followed in general, the curve in Buffalo Creek, along the north bank of which, a short block distant from Prime, ran Front Street. At right angles to Prime, Hanover Street (also in its early years called Canal Street) was established in 1829 from Prime to Cross. In the '30's, a part of what was afterwards Prime, was known as St. Joseph Street; but in 1845, the name Hanover was adopted for the entire thoroughfare.

Other streets in this little angle appeared, changed their names a few times, after the usual Buffalo fashion, and either remained on the map to this day or were wiped out by subsequent improvements. The construction of slips connecting the Buffalo Creek with the canal, worked many changes; later, as these slips were abandoned and filled and built over, the old lines were more thoroughly obliterated than before. Greatest of all was the change wrought when in 1886, the Lackawanna Railroad extended its tracks through this part of the city. Both Front Street and Prime were wiped off the map. Buildings which had originally fronted on Prime were either obliterated, or, as was the case with the old Ætna building, a large four-story brick structure, moved back a score or so of feet. The once imposing portal of this block, flanked by heavy columns, is there yet, but it does not look out upon the busy street of which it was once a part, nor even stand on the old line of that street; and close to its threshold, raised above the old grade, run the railroad tracks.

Front Street was indubitably a street; so recorded, Aug. 18, 1821, as of 66 feet wide. But it was always a street with only one side. It skirted the "big" creek, and from the day when Judge Wilkeson's famous exploits first made the creek wharfage accessible and valuable, that portion of the "street" running west from Main to Commercial Slip was the chief landing place and point of departure. Business centered there, so that, by 1825, when the opening of the canal changed so many of the currents of commerce, the north or land side of Front Street was well built with warehouses and stores. The earlier wharves were of private construction; but by 1837 we find the Council of Buffalo authorizing the building of wharves in Front Street at the cost of the city. Although that date—say the later '30's—was the day of small things in some matters—it was emphatically the day of growth, of larger and larger things, in this particular part of Buffalo. It was the time of the steamboat era, when each season brought new and finer craft. There were no railroads to the West, but the great prairie states were calling. Food and construction material, implements

and machinery for all the grain empire of the Middle West, came to the foot of Buffalo's Main Street, to this bit of old Front Street, for shipment by lake. So, too, came the emigrant, from New England, from Ireland, from Germany, by the thousand. Schooners, brigs and even square-rigged ships lay with sails furled at the wharves along Front Street, loading or unloading, all day long, or all night. The Terrace with its old Market House, Commercial and other lower-town streets, were thronged with business-men, with sightseers, with emigrants. The steamboat runner, the overloaded omnibus, the drays piled high with freight, throngs everywhere,—these are features preserved in chronicles and pictures of that period. The sailor ashore, the canal boatman, and many another reckless type of man and woman, kept carnival after their kind. This part of the city, and this period, gave birth among other things, to America's most distinctive form of indoor entertainment—negro minstrelsy. But the real life of Buffalo was commercial and it centered in the streets of which mention has been made.

The first association of Buffalo businessmen, for business ends, was in the spring of 1819, when the Buffalo Harbor Company was formed. Their achievements have been recorded elsewhere;[1] but no survey of business organization in Buffalo should fail to note, as a starting-point, the initial harbor improvement. Nine of the foremost men of the village formed the first company: Jonas Harrison, Ebenezer Walden, Heman B. Potter, J. G. Camp, Oliver Forward, A. H. Tracy, Ebenezer Johnson, E. F. Norton, and Charles Townsend. These are the names appended to the petition to the Legislature for a State loan of $12,000 to be used for harbor improvement. Judge Wilkeson was not a member of the original company; but as it turned out, it was his energy and practical ability that accomplished the undertaking.

---

1. "Historical Writings of Judge Samuel Wilkeson," 5 Pubs. Buf. Hist. Soc., 185-214.

II. Birth of the Board of Trade.

Buffalo's success over Black Rock, in the canal contest, tended to strengthen the bond of union among her business men, but over twenty years went by before any formal step to that end was taken. In those twenty years business developed rapidly. Central Wharf, as the part of Front Street between Main Street and Commercial Slip came to be called, became built up closely with warehouses and stores devoted for the most part to the various forms of business connected with the lake and canal. Prime Street, too, as well as other thoroughfares in this compact neighborhood, shared in the same general character.

In 1844, among the substantial merchants of the city, was Russell H. Heywood. He had come to Buffalo poor, but self-reliant and capable—the sort of young man who makes his way.[1] By 1826 he was keeping a little store; and Buffalo's first Directory, in 1828, has this entry:

"HEYWOOD, R. H., merchant, green store, Main Street."

The second Directory, in 1832, records Mr. Heywood as "merchant, main st. dwel. seneca st."; and the third Directory, in 1835, has the still more laconic entry: "Heywood, merch. h sen bel ell"—which obviously means that the house of Merchant Heywood was in Seneca Street below Ellicott. In 1842 Mr. Heywood's name appears as proprietor of the Venice mill, at which time, as for some years after, he resided at No. 77 East Seneca Street. In 1847, he is recorded as a flour dealer, with house at 81 East Seneca Street. His store, in the earlier years, was at one time on Pearl near Seneca. The "Venice mills" were probably so called because Mr. Heywood had business interests at Venice, Ohio. Among his holdings in Buffalo was a tract of land running from Seneca to Exchange Street, through which Wells and Carroll streets have been opened, and here he built a yellow-brick house, a landmark for many years in the heart of a good residence neighborhood.

---

2. It has been recorded that "he came to Buffalo a poor boy, and his business career began by selling molasses candy on the dock." However his business career began, he could hardly be called "a poor boy" at the time, for he was about 27 years old when he came to Buffalo.

RUSSELL H. HEYWOOD.

FOUNDER OF THE BUFFALO BOARD OF TRADE.

With other merchants of his day, Mr. Heywood felt the need of a business organization, which would bring merchants and forwarders, vessel-owners and others into closer touch, and enable them to adopt definite policies and methods, both for their own good and to promote the interests of the city. There was much discussion of the matter, in stores and offices, in the winter of 1843-'44, with the result that a meeting was held, January 16, 1844, at the office of Joy & Webster, in the now old but then new Webster Block. A still earlier meeting may have been held in this matter, but no record is found of it. Indeed, the early records, for many years, are very scanty. One searches the newspapers of 1844 in vain for any record of this movement, which was to be of so great import to Buffalo. The feature of local reporting had not then developed, nor indeed, had graphic, detailed news reporting of any sort. But it is matter of record that at this January meeting, Mr. Heywood addressed his associates, stating that the purpose of the suggested organization was "to cultivate friendship among the business men of Buffalo, to unite them in one general policy for the general benefit of trade and commerce of Buffalo, and to make it a market for western produce." Mr. Heywood further "proposed, for the purpose of carrying out this project," that if they would form a "Board of Trade," he would provide a room suitable for their needs, "and donate the use of it as long as they might want it for the purpose." This proposition brought into existence the Buffalo Board of Trade.

Messrs. J. L. Kimberly, S. Purdy, Philo Durfee, R. C. Palmer, and William Williams were appointed a committee to draw up a constitution and by-laws, and report. John L. Kimberly, chairman of this committee, was the head of the firm of Kimberly, Pease & Co., forwarders "on the dock" at the corner of Lloyd Street. Samuel Purdy, of Purdy & Co., was a commission merchant at No. 6 Prime Street. Philo Durfee, also a commission merchant, was at No. 12 Prime Street, with a residence at No. 24 Delaware Street. Rufus C. Palmer, of Holt, Palmer & Co., forwarders on the dock near Main, had his residence at No. 22 West Seneca Street;

and William Williams resided at No. 11 West Seneca Street. It is worth while to note where the leading business men of the town lived in the early '40's. Seneca Street, as the foregoing indicates, was still a pleasant desirable residence street, with ample dooryards and orchards around the homes. In this year of 1844 there were no fewer than nine men by the name of William Williams, prominent enough in the business of Buffalo to be mentioned in the Directory; the one who shared in drafting the first constitution of the Board of Trade was a druggist.

On January 30th this committee submitted to another meeting of merchants, a draft of constitution and by-laws, which was adopted. No record of further action is found until March 11th, when a third meeting was held, at which Mr. Heywood was chosen president. Other officers and a first board of directors (hereinafter given) were named. And although there may have been some uncertainty as to how at once to make the organization effective and a force in the community, at any rate, Buffalo's Board of Trade was born. It had a name and a reason for being; all that was lacking was a local habitation. This Mr. Heywood undertook to supply.

Some time before this, he had acquired the northwest corner of Prime and Hanover streets, extending from Hanover Street to Prime Slip, which had been cut through from Buffalo Creek to the Erie Canal. On the 1st of September, 1844, ground was broken for what was to be known as "The Merchants' Exchange." Construction was vigorously pushed during the winter, with the purpose of having it ready for occupancy by the 1st of May. This was not quite realized, the dedication coming in June. By the middle of December the walls were up and roof on. It was a four-story brick building, with a frontage of 85 feet on Prime Street, on Prime and the canal 93 feet, and a depth on Hanover Street of 124 feet. The first floor was taken up with six good-sized stores. In the second story was the Merchants' Exchange room, an octagon, 30 by 60 feet, open through the upper stories so that it was 30 feet high, with a large skylight in the arched ceiling. The floor was of

marble. Around the Exchange room were twelve offices, varying in size from 19 by 24 feet to 20 by 40 feet. The third story was similarly divided into offices, and in the fourth story or loft were twenty rooms, chiefly for storage. The entrance to the offices in the second story was from the Exchange room, and to those in the third story from a gallery. The building was fireproof, according to the construction of the day, having a tin roof, iron shutters and doors, and copper gutters. The estimated cost was $20,000.

In the scanty allusions to it in the contemporary press, it is spoken of as "one of the finest buildings in the city." From a description of it which has been written by one who knew it well when she was a child[1] we may readily believe that it merited the praise given it.

It stood by itself, clear from other buildings. The principal entrance was on Prime Street; there was also an entrance on the Hanover-street side. The rear wall was of solid masonry, without windows. The fourth side skirted Prime Slip, and from the upper stories, when the iron shutters were thrown back, one could look down into that little water-way, through which canal-boats passed, and there were great rings in the wall where they could tie up.

Entering from Prime Street, one passed up wide marble stairs to the main or Exchange floor. This floor was similarly reached, but through a vestibule, on the Hanover-street side. The lower floor, devoted to stores, had no connection with the floors above, to reach which, one passed up stairs, interrupted with a landing, at the Prime-street end. The middle part of the second and third floors was an open space with a tesselated floor. Into this rotunda, as it was called, opened the surrounding rooms. Those on the right, entering from Prime Street, were devoted to the Board of Trade. "These rooms contained little beside tables covered with green baize, and chairs. They occupied all the space between the two outer entrances. Over the first door was a

1. "Buffalo Sixty Years Ago," by Mrs. Mary Elizabeth Keller, in the Buffalo *Express*, Mch. 17, 1907. The writer's father, James S. Leavitt, carried on his business of book-binding in this first Merchants' Exchange for some years.

small block sign with gilt letters. It read: 'Board of Trade.'" Adjoining were two reading-rooms with high tables at which the visitor stood to consult the newspaper-files thereon. On the opposite side of the rotunda were offices, and directly opposite the Hanover-street entrance were a number of small bins, where samples of grain were shown.

The stairs from the Hanover-street entrance (writes Mrs. Keller) "led to a gallery above about four feet wide, and railed with a rough-sawed banister. Here we could see all that took place on the floor below. After going up perpendicularly the height of the third story, the walls arched and terminated in a large oblong skylight. These walls and ceiling combined, were frescoed with beautiful designs. Over the two doors at the end of the building was a buffalo. This was plain enough to me, but the picture facing it, a man standing up in a little two-wheeled wagon, driving three or four runaway horses, and not looking one bit afraid, was always a puzzle. The rooms of the upper floor, being shut in by these walls, were lighted by their windows only. A narrow passage ran all around this story. The rooms, with the exception of the two at the end, were for storage only. In one, was a flight of stairs going up to a scuttle, for the top of this famous building was the principal observatory in the locality. From it could be seen for miles the incoming and outgoing vessels, and those that were at times unfortunately stuck in the ice. . . . Most of the offices in the gallery were rented to various people, Mr. Heywood retaining one for his own personal use. Here was permanently located the office of the Morse Telegraph Company. . . .

"The sessions of the Board of Trade were held in the rotunda, and how many have Sarah[1] and I attended, watchers in the gallery above! The hour of dismissal was announced by the ringing of a gong. The gong was kept in the bindery and was usually moved vigorously by one of the boys. When in my younger days I chanced to be on hand at this auspicious time, I performed this duty—performed it with mingled feelings of delight and compassion—delight in my

1. Sarah Leavitt, sister of Mrs. Keller.

fancied authority, and compassion for the poor merchants who, I supposed, one and all, wished to remain much longer."

Such was the building in which Buffalo's Board of Trade met for the ceremony of dedication, June 5, 1845. On March 10th of that year, a second election of officers had been held, those who had been chosen the year before being reëlected. The meagre report of the first meeting "on 'Change" in Buffalo, given by the Buffalo *Commercial Advertiser,* said:

"The first meeting of the business men constituting the Board of Trade, was held at the Merchants' Exchange today noon. On the occasion, R. H. Heywood, Esq., the President, made an exceedingly appropriate address which was well received, and after the exchange of congratulations on the prospect of our city now taking her stand alongside of other and larger cities in having an association of merchants, who can assemble together and discuss matters pertaining to the welfare of the business-man, the meeting adjourned, to meet at the same hour tomorrow."

President Heywood's address on this occasion has been preserved, and may well be included here. He said:

Gentlemen of the Board of Trade—In erecting this building I have endeavored to combine strength, durability, utility and just architectural proportions; the eye has been consulted instead of works on architecture. How far I have succeeded I leave you to judge.

I congratulate you on this our first meeting on 'Change, and tender you the use of this room, while I am fortunate enough to remain the owner, for the purpose of meeting on 'Change, each day, and holding any meetings connected with the trade and commerce of this city—to exhibit your samples of grain and light articles of merchandise—to place on the bulletin your advertisements of the sailing of your steamboats and vessels and articles of merchandise you have for sale; on condition you repair all damage you may do the room, other than natural wear; employ a person to take care of your samples and advertisements and sweep the room after each meeting.

I will briefly give you my views of the benefits to result from the forming a board of trade with its committee of reference—meeting

on 'Change—exhibiting samples—advertising on bulletin—register of arrivals at the hotels, and the reading room.

A Board of Trade, it is taken for granted, in all cities, contains the wisdom, wealth and integrity of the active commercial portion of the community—it elevates the character of each member, and of the city—promotes fair dealing and kindly feeling toward each other—gives force and character to any project that may be started for obtaining the enactment of laws for the benefit of trade and commerce—establishes precedence, rules and usages for governing trade.

Committee of Reference. The referees are your peers, deemed well versed in trade and commerce; elected by yourselves each year, to hear and decide all matters of difference without delay; thereby avoiding vexatious and frequently almost interminable law suits, engendering ill-will toward each other, perhaps for life, which, when decided, the decision is quite as apt to be wrong as right, having to be decided by men comparatively ignorant of commercial usages.

We find the first Board of Reference was established at Pisa, in Italy, in the eleventh century, composed of arbiters of disputes, freely chosen by the merchants and confirmed by the Government. Merchants and ship-owners were in the habit of assembling on Christmas evening every year, and electing by vote two worthy men, experienced in commercial affairs, under the name of consuls, and another as judge of appeals. Such committees of arbitration were afterwards appointed in all the large commercial cities of Europe, and in course of time really became tribunals of justice.

New York has her Chamber of Commerce, chartered by the British Government before the Revolution, with a renewed charter by the United States Government.

All cities throughout the world of any note have their chamber of commerce or board of trade, with committee of reference, and place "where merchants most do congregate."

Buffalo is now one of the largest grain markets in the world and is destined to be the largest, when half of the western prairies are brought under the plow; with three hundred ships, fifty steamboats, and hundreds of merchants trading with her—surely what has been indispensable in other cities since the middle ages, must be essential to Buffalo.

Meeting on 'Change gives you an opportunity of comparing views and establishing uniform prices for the day—you mingle together and become better acquainted with each other, and rub off many sharp corners of jealousy and selfishness. By promptness at the

hour all persons that have business with you will expect to meet you instead of spending hours as is frequently the case, in pursuit of you about the city. Few will be willing to acknowledge that they expect no person to see them on business in the course of the day—your promptness on 'Change or absence will be taken as a criterion of the amount of business you are doing—meeting on 'Change, you will soon find, enables you to accomplish more in a few minutes than you could otherwise in hours.

Exhibiting samples of grain with the amount, conveys to the purchaser the knowledge that you have it for sale, and having the samples ranged along together, enables you and him to compare qualities and judge of the amount on the market.

Advertising on the bulletin the sailing of your steamboats and vessels, conveys the knowledge that you are up for freight or passage to particular ports—saves the answering of many questions—and the person wishing freight or passage the time and trouble of enquiring at every office along the dock.

You will find the same advantage in advertising the commodities you have for sale.

The register of arrivals at the hotels enables you to see at a glance who of your acquaintance are in the city and their destination—that you may wait on them—show them the articles you have for sale—induce them to become customers then or at some future time—to know what strangers to you are in the city and if desirable to make their acquaintance—to know how all your doubtful debtors are passing you by to pay their cash or obtain credit in other cities—with a view of putting you off to some more convenient season.

The reading room is furnished with the best commercial papers from the principal cities in the United States, placed on file from twenty to thirty minutes before individuals can get their papers at the postoffice, by waiting as they must for the distribution of the mails.

The cost of being a member of the Board of Trade, which entitles you to all the privileges I have named, is estimated not to exeeed five dollars per annum.

Many of you take two or three New York papers, at a cost of ten to twenty-five dollars per annum, which contain but a small portion of the news you would find at the reading room, and that, in these days of railroads and electricity, very stale, when all your neighbors have it from twenty to thirty minutes before you.[1]

1. Russell H. Heywood was a large figure in the early history of Buffalo, and should have a fuller record in her annals than can here be given. Born of Revolutionary stock in Worcester, Mass., Sept. 20, 1797, he settled in Paris

The original constitution stated that "the objects of the Board shall be to promote just and equitable principles in trade, to correct abuses and generally to protect the rights and advance the interests of the mercantile classes." The admission fee was fixed at five dollars, and annual dues at two dollars. The first officers, elected March 11, 1845, were: President, Russell H. Heywood; first vice-president, George B. Webster; second vice-president, William Williams; secretary, Giles K. Coats; treasurer, John R. Lee. The first board of directors consisted of H. M. Kinne, Philo Durfee, A. Hayden, J. L. Kimberly, R. P. Wilkins, A. H. Caryl, J. B. Bull, George Davis, J. E. Evans, and John D. Shepard. Henry Daw, Walter Joy and A. P. Yaw were the first board of reference.

The original members of the Board of Trade, whose names appear with the constitution and by-laws as printed in 1845, were as follows:

George W. Allen, Cyrus Athearn, N. Ayrault, William Andrews.

John G. Brown, J. B. Bull, J. Brainard, Benjamin Bidwell, Oliver Bugbee, Theodore Butler, C. C. Bristol, P. C. Blancan, Warren Bryant, J. W. Beals, J. R. Beals, M. P. Bush, James W. Brown.

Hill, Oneida Co., N. Y., and in 1824 moved to Buffalo, where he continued active in business until the late '50's. Mr. William W. Folwell of Minneapolis, whose wife, Sarah H., is Mr. Heywood's daughter, kindly supplies the following data:

"Mr. Heywood built the old Chamber of Commerce on the dock. I have heard him tell how he employed an artist to paint on the wall of one end of the chamber proper a big bull, and on the other a bear. He was president of the Buffalo & Hornellsville railroad, and sunk $80,000 in it. Spite of losses, he had before the panic of 1857 acquired what was a large fortune for the time. He was hard hit by that revulsion. He had endorsed liberally and had to pay other men's debts in large amounts.

"In the '30's Mr. Heywood bought a large tract of land in Erie County, Ohio, some 6,000 acres originally. On this were two valuable water-powers, on which he built flour-mills of great capacity for those days. Much of the land was splendidly timbered, and a sawmill was put up to work up oak, elm, maple, walnut, ash and other lumber for the local market. There were cooper shops to furnish barrels for the flour mills. A country store and a post office were maintained. Mr. Heywood was the whole of the village of Venice, a short distance west of Sandusky. After 1857 his principal business was in Ohio, but he kept his old house on the corner of Seneca and Wells streets, and remained a citizen of Buffalo till near the close of the '70's. After selling the fine old house, he lived with the widow of his son Daniel in Venice and Sandusky. Because of his long absences from Buffalo, he became unknown to all but the old settlers of his time. His later acquaintances were among the Wilkesons,

Theodore Chapin, Giles K. Coats, A. B. Campfield, A. H. Caryl, W. Chard, James A. Clark, W. A. Clark, H. O. Cowing, Grosvenor Clark.

Thomas J. Dudley, Philo Durfee, Henry Daw, Joseph Dart, Jr., James De Long, George Davis, George A. Deuther, C. Demming.

Chas. W. Evans, James C. Evans, John B. Evans, Joseph S. Eckley, D. Eckley, Jr., E. D. Efner, Wm. H. E. Eckley.

William Fiske, Watson A. Fox, J. Fleeharty, Samuel D. Flagg, Rinaldo Farr, George A. French.

Jno. M. Griffith, D. F. Gray, S. F. Gelston, A. G. Gridley, H. Garrett.

Albert Hayden, S. W. Howell, H. E. Howard, S. B. Hunt, James Hollister, George W. Holt, R. H. Heywood, Wm. Hollister, Azel Hooker, E. Hayward, I. M. Hubbard, Addison Hills, R. L. Howard, R. Hollister, Ora L. Holbrook, M. S. Hawley, Judson Harmon, Chester Hitchcock, John Hollister, S. W. Hawes, Horace Hunt, H. C. Hayward, J. M. Hutchinson.

A. W. Johnson, Sherman S. Jewett, Miles Jones, Hiram Johnson, E. R. Jewett, Walter Joy.

John L. Kimberly, H. M. Kinne, William Ketchum, H. Kelley, L. Knapp.

Fillmores, Sheltons, Burwells, Shumways, and the older members of St. Paul's Church. He was Dr. Shelton's right-hand man for many years, and the largest contributor to the erection of the building. The black-walnut lumber for the interior finish came from his land in Erie Co., Ohio. He was senior warden of St. Paul's for 25 years. He was president of the Buffalo Savings Bank, 1848-1859, and a member of the Historical Society. I remember attending a meeting of the Historical Society with him, I think in 1864, at which Mr. Fillmore presided and Dr. Morton of Hartford, Conn., made a passionate defence of his claim to be the discoverer of chloroform.

"He was a Henry Clay Whig and afterwards an ardent Republican, but never desired political employment. He possessed a remarkable power of seizing the meat of a statement or argument and deciding promptly upon the thing to be done. His letters are clear, terse and definite. He attributed his business habits largely to the seven years apprenticeship he served in Worcester, Mass. His wit was keen and abounding. If there was a funny side to a thing he never failed to see it. He was a charming host, and during the life of his first wife his house was the resort of many persons of distinction. He was a very sincere Christian, who had shed all the foolishness of Puritanism, but not its virtues. The fluctuations of fortune had no effect on his temper. If he made a hundred thousand in a good year's milling, he did not go wild over it; if he lost as much his neighbors never heard him whine over it. When he turned the key to his office he left all business cares behind, and gave his evenings to children whom he made comrades."

Mr. Heywood died in Sandusky, O., July 23, 1883, and was buried in Buffalo.

John R. Lee, William Lovering, Jr., E. A. Lewis, Oliver Lee, William Laverack.

P. S. Marsh, Thomas Murray, George A. Moore, Samuel L. Meech, I. Myres, F. A. McKnight, A. D. A. Miller.

John T. Noye, John Newman, Frederick W. Newbould.

Rufus C. Palmer, Samuel H. Pratt, William E. Peck, L. K. Plimpton, P. L. Parsons, Pascal P. Pratt, J. N. Peabody, John Patterson, A. D. Patchin, Theodore C. Peters, William Prescott, John Pease, Lucius H. Pratt, Samuel Purdy, Geo. Palmer, A. Pinney.

E. Root, G. B. Rich, Aaron Rumsey, Hamilton Rainey, O. W. Ranney, A. Robinson, H. B. Ritchie, G. Russell.

Richard Sears, J. Saltar, Jason Sexton, H. R. Seymour, H. S. Seymour, H. H. Sizer, Jno. D. Shepard, Sidney Shepard, Joseph Stringham, Isaac Sherman, Noah P. Sprague, Jacob Seibold, O. G. Steele, E. Smith.

Edwin Thomas, George W. Tifft, S. Thompson, H. Tanner, W. A. Thomson.

G. B. Webster, Wm. R. L. Ward, R. P. Wilkins, William Williams, Wm. Williams, E. R. Wilkeson, Jno. Wilkeson, George B. Walbridge, G. T. Williams, Henry J. Warren, G. R. Wilson, E. S. Warren.

III. The Business Situation in the '40's.

It is worth while to record some phases of the business situation that then engaged the attention of this new Board of Trade. The lake and canal interests were developing at a tremendous rate, and the Merchants' Exchange building had filled up with tenants even before the dedication. In the preceding April the Buffalo Fire & Marine Insurance Company, of which Mr. Heywood was a director, and H. Shumway the president, had moved from their old office at Main and the Terrace into fine new quarters in the Prime-street exchange. Captain Ebenezer P. Dorr, and his friend, Capt. D. P. Dobbins, had offices there. James S. Leavitt established his bookbindery on an upper floor, and Robert T. Foy, set up a printing-office; while Calvin F. S. Thomas,

afterwards of Jewett, Thomas & Co., opened his printing office and bindery in the third story. The Exchange was a busy center of many industries, most of which were in some way related to the business "on the dock."

There, commercial interests were rapidly expanding. The forwarding business was growing by leaps and bounds, with the development of the West. Chicago's population was then about 12,000; and her grain shipments in 1844 are given as one and a half million bushels of wheat; no oats, rye or barley. Vessels were still carrying provisions, flour and other means of subsistence to the West. Furs and skins were no unusual items in the cargoes unloaded on the wharf at Buffalo. Early in 1846, 40,000 muskrat skins were unloaded loose (not baled) on the docks.

In 1844 Buffalo boasted a population of 26,503. Three years before this date the tonnage of the lakes, as licensed at the several districts, was as follows:

Buffalo	14,991	tons
Detroit	11,432	"
Cleveland	9,514	"
Oswego	8,346	"
Sackett's Harbor	3,633	"
Sandusky	2,643	"
Mackinac	470	"
Niagara	230	"
	51,259	"

Chicago, it will be noted, does not appear at all. The vessels then enrolled at Buffalo, and their tonnage, were of the following classes:

Steamboats, 24	7,642	tons
Schooners, 53	5,043	"
Brigs, 9	1,662	"
Ships, 2	644	"
	14,991	"

The Buffalo Board of Trade was the pioneer organization of its kind in the Great Lakes region. In fact, there are but six in the United States which are older. Oldest of all on the American continent is the New York Chamber of Commerce, which dates from 1768. Fifty-three years later, in 1821, the merchants of Baltimore established a Board of Trade, which has been continuous ever since. A similar organization was formed in Philadelphia in 1833; in New Orleans in 1834, in Boston in 1836, and in Cincinnati in 1839. Then came Buffalo in 1844. With the development of the West and the increase of shipments, the movement for organization spread rapidly. In 1847 the business men of Cleveland and of Detroit effected organizations on lines similar to those laid down by Buffalo. The Albany Board of Trade came into existence the same year. The next year Chicago joined the list. The year 1849 added Oswego and Toledo. Pittsburg waited until 1853. In 1865, the initiative having been taken by Detroit (embodied in a resolution of February 28th, and on a call issued by that Board, May 25, 1865) the first National Board of Trade convention was held in that city, July 11, 1865; though it was not until June, 1868, at Philadelphia, that the permanent organization of the National Board of Trade was effected. Buffalo's part in that work will be narrated presently.

When the Buffalo Board of Trade came into existence a paramount question was the enlargement of the harbor. The natural harbor had been extended by various slips, especially Commercial Slip, which was the outlet of the Erie Canal. Most of this work was built by the State. Prime Slip, originally called Thompson's Cut, was an exception, being a private interest. One of the first matters which engaged the attention of the young Board of Trade was the construction of the Main and Hamburg canal. In 1847, in response to an invitation from the Common Council of Buffalo, seven members of the State Canal Board visited Buffalo and inspected the territory through which it was proposed to cut the Main and Hamburg. The whole local system of slips and basins was under consideration; and although records are lacking, there can be no doubt that the enterprising men

of the Board of Trade impressed upon the State Board the growing needs of the shipping interests of Buffalo. Without entering at length into the history of these slips and basins, now for the most part abandoned and filled, it may be recorded in passing that the principal one of them, the Main and Hamburg, was put under contract in June, 1848, but was not ready for use until the spring of 1852. The Clark & Skinner Canal, commenced as a private enterprise, passed under State control in 1843. The Erie and Ohio basins, with their connecting slips, were constructed in 1848-'50, though somewhat changed in later years. The Evans Slip or "ship canal," as it was called in the earlier years, was constructed in 1831-34, by private enterprise. Coit Slip was also built at private expense. Of the slips above mentioned, the Main and Hamburg was finally abandoned and wholly filled, 1901, and several of the minor waterways have been obliterated. Prime Slip, 40 feet wide, was an important feature of the harbor when the Merchants' Exchange was erected on its bank. It was filled up during the late '60's, and its site is now covered with various structures.

The most important feature of harbor enlargement, undertaken at the time of which we write, was the construction of the Blackwell or City Ship Canal, laid out southerly from Buffalo Creek, from a point near the old lighthouse to the south channel. Some such extension of the harbor had been projected as early as 1836, but definite action dates from 1847. The canal was completed and brought into use in 1850. In 1873 it was widened to 140 feet and deepened to 15 feet; and in 1883 it was extended by the Buffalo Creek Railway Company through the "Tifft farm" lands, occupied by the Lehigh Valley Railroad coal and ore docks.

Thus it is seen that in the years immediately following the formation of the Board of Trade, the harbor of Buffalo, the chief scene of its activity, was remade and more than doubled in capacity.

From 1825 to 1845 the Erie Canal had practically gone through a continuous enlargement. The Constitutional Convention of 1846 opened the way for further enlargement.

It was an era of unprecedented canal construction. In New York State, up to 1846, fifty-three canal companies had been incorporated. Most of these were ventures entered upon by men who, stimulated by the success of the Erie Canal, sought to share in the profits of a toll-collecting enterprise. Many of these undertakings came to nought. Others became important parts of the canal system of the State; but the feature of tolls engaged the attention of boards of trade and legislators, of shippers and politicians, passing through many phases until finally done away with in 1883.

Canal construction was by no means peculiar to New York State. Other commonwealths, notably Pennsylvania and Ohio, were at this period well-nigh as active in developing artificial waterways. One of these, looked upon by the Buffalo Board of Trade as destined materially to affect the harbor interests and trade of Buffalo, was the extension of the Pennsylvania Canal from Beaver on the Ohio, 28 miles below Pittsburg, to Erie, Pa., on Lake Erie, 136 miles. This canal was opened Dec. 2, 1844, on which day three boats laden with Chenango valley coal from Mercer Co., Pa., reached Lake Erie. It was the most direct communication Buffalo had as yet had with Pittsburg; and it promised not only a new and cheapened coal supply(the vast anthracite business of the Lakes had not yet begun), but a useful route for bringing hither the sugar, molasses and cotton of Louisiana. Something of this service it did for a time perform; but its profitable career, like that of so many other canals, was before many years cut short by the railroads.

The New York State work, so far as relates to the harbor, was confined to the canal system. Buffalo's Board of Trade became the nucleus around which the citizens rallied in appeals to the Federal Government for harbor appropriations. The year the Board of Trade was formed the River and Harbor bill, appropriating $50,000 for Buffalo, passed both Houses only to be "pocketed" by President Tyler to the deep disgust of all who were interested in business on Buffalo Creek. Not only was the harbor shallow, but it was narrow, and its waterways were perpetually choked by many

craft. Not only did the small canal-boats swarm at every dock, but the lake carriers themselves were small in tonnage and many in number. In the season of 1843, the lake arrivals at and departures from Buffalo were 5884, though the total tonnage was only 49,356, and this included some 50 steamboats. When the Board of Trade was organized only one elevator—the pioneer Dart—stood on Buffalo Creek, and even when running its best its two-quart buckets could only lift into its bins 55,000 bushels, which was the limit of its capacity. In 1846 it was enlarged to twice that capacity, and two more elevators, the City and the Buffalo, were built, and gradually the vast array of these leviathans of trade, looming more vast and more numerous with every year, transformed the harbor of Buffalo into the mightiest storehouse of grain on earth.

Those early years of the Board of Trade were peculiarly important, for it was the era of many radical changes. The steam elevator replaced the throng of grain-handlers who in the early days lifted the cargoes on their backs. At this time, too, the propeller arrived, to put an end to the supremacy of sailing-craft. The first propeller, the Vandalia, built at Oswego, steamed into Buffalo harbor in 1842. In a year or two the Samson and the Hercules followed—and another chapter was begun in lake-forwarding. But it was still the time of small things; of small shipments, of slow communication. "Morse's magnetic telegraph" was new, uncertain and expensive, and reached but few places; it took years to bring it into common use in routine matters of business. It was still the time of state bank issues, of wildcat and counterfeit currency, of uncertain and fluctuating values. And not until Russell Heywood put his grain boxes in the Exchange rotunda, where samples could be seen and judged, could purchasers buy without being compelled to perambulate the docks in search of cargoes.

These glimpses of business conditions in the '40's help one to realize the relation of the young Board of Trade to the community. Its specific objects are pretty well indicated in President Heywood's inaugural address. Definite rules for the inspection and grading of grain were in due time

adopted, and the members protected each other by agreeing upon a uniform scale of fees or commissions for buying or selling grain or produce. The business acts of every member were subject to investigation by the Board of Directors; and it is but just to record that in its more than sixty years of continuous and steadily-growing activity, acts of rascality have been so few as to be a wholly negligible matter in this review. On the contrary, membership in the Buffalo Board of Trade—under that or under its later-day names—has ever been (generally speaking) a guarantee of enterprise, of public spirit, of business integrity and trustworthiness.

IV. An Early Triumph—The St. Clair Flats Canal.

The year 1854 brought to Buffalo a new form of government. It was as distinct a milestone in the city's progress as was 1832, the year of incorporation. The city was enlarged by annexing Black Rock, the number of wards was increased from five to thirteen, of aldermen from ten to twenty-six. The old Market House and City Hall on the Terrace was torn down, and the seat of government was moved to the Franklin-street buildings which were razed when the present City and County Hall was finished in 1876. It was a year of much building. In 1854 a fire had swept through the Canal-street neighborhood, consuming many wooden buildings, and now this district, between the canal and the Buffalo river, began to be rebuilt in brick. Many of the old brick buildings in that section date from 1854 or thereabouts. On Buffalo Creek there were now ten elevators: Brown's, Hatch's, Evans & Dunbar's, Fish's, Seymour & Wells', Dart's, Sterling's, Richmond's, Holley & Johnson's, and Hollister's; with a total storage capacity of 1,550,000 bushels. On the lakes, steam had virtually supplanted sailing craft, though the latter were in use, less and less, for many years thereafter.

The St. Clair Flats were the terror of vessel-men and shippers. During the season of 1854, vessels paid for lighterage, damages by collision, etc., while aground on the

Flats, the sum of $660,126.56, with a total detention of 5566 days! Small wonder that Buffalo's Board of Trade, on whose members a large part of this loss fell, was exasperated at the failure of the General Government to provide a proper channel, and decided to take the initiative itself.

The morning of March 28, 1855, was an important date in the history of the Board of Trade. At the Corn Exchange on Central Wharf, that morning, President Hazard brought up the subject of improvement of navigation through the St. Clair Flats. It was already an old theme, but more and more, vessel-men and shippers felt that something must be done. Several propositions had been made. Mr. Hazard estimated that the value of vessels then owned in Buffalo was $1,250,000, and one suggestion was that this capital should pay an assessment of one per cent., or $12,500, towards keeping the channel open, and that the vessel interests of other lake cities should do the same. The value of all vessels engaged in upper lake trade was put at $4,000,000, which at one per cent., would give $40,000, sufficient to keep a clear channel during the whole season.

Other suggestions were made. Watson A. Fox proposed a stock company, with a capital of $25,000 or $50,000, for the purpose of dredging the Flats. Congress might be petitioned at its next session to refund the money expended by the company, or grant a tract of land which could be sold to reimburse the stockholders. Cyrus Clarke proposed that each vessel should subscribe say $100 or $200 towards keeping the channel open. Other ideas were put forth, but finally the matter was referred to a committee, who were instructed to correspond with Boards of Trade in other lake cities, with a view to holding a convention of vessel owners, in Buffalo on April 18th.

At another meeting, the next day, Mr. Watson A. Fox offered the following:

Resolved, That a committee of five be appointed by the chair, to whom shall be referred the question of improving the navigation of the St. Clair Flats. That it shall be the duty of said committee to draft a circular, to be addressed to the several Boards of Trade at other lake cities, requesting them to appoint committees to procure

subscriptions, at once, for the purpose of raising money to dredge the St. Clair Flats; and further, that the said several boards send delegates to a convention to be held at Buffalo on the 16th day of April, who shall be prepared to report the amount of funds subscribed for that purpose. That said circular be published in the daily papers of the city, and that said committee be instructed to procure all the information they can in regard to the probable cost of dredging a suitable channel, and which of the several channels it may be best to select for that purpose.

This resolution was adopted, and President Hazard named for the committee Watson A. Fox, John J. Henderson, O. W. Ranney, J. C. Evans and H. C. Walker. Another resolution created a committee of five who were to solicit subscriptions "to defray the expenses of sending one or more delegates to Albany, to urge by all honorable exertions or influence the passage of the bill now before the Legislature, for the imposition of tolls on railroads." This last proposition was vigorously opposed by certain members, especially by J. G. Deshler and Cyrus Clarke. Hiram Niles was chief spokesman for its advocates, and it finally prevailed.

The circular which Mr. Fox's committee prepared and distributed, fairly stated the case in the following paragraphs:

As the General Government has failed to furnish funds for the dredging of the St. Clair Flats, through the omission of the President to sign the bill passed for that purpose at the last session of Congress, it has become necessary that it should be done by private means and private enterprise. The damage sustained annually by those interested in the navigation of the lakes, is far greater than the expense of the work; and we hope the public spirit of our citizens will prompt them to give in defraying the expense, and that they will designate in a liberal subscription the amount they are willing to contribute toward the work, and appoint a committee to meet at Buffalo. . . .

We think that the dredging of the channel, as it should be, will cost at least $35,000. . . .

The circular also contained the assurance that Buffalo could be counted on for $10,000, her full proportion for prosecuting the work.

The Chicago Board of Trade acted promptly, named delegates to the Buffalo convention and set about raising its subscription. Milwaukee did likewise, taking $3,000 as its due share to be raised.

The St. Clair Flats convention, as it was called, met in Buffalo on April 19, 1855. Mr. Hill of Chicago was its president; John J. Henderson of Buffalo its secretary. Several of the lake cities were represented by delegations. Buffalo, Chicago and Milwaukee were ready with their subscriptions. Oswego offered no money and objected to the method proposed, but her disapproval in nowise affected the progress of the undertaking. Detroit was slow in acting, but gave assurances of help. With $18,000 pledged, Mr. Hazard of Buffalo was made treasurer of the fund. Mr. John J. Henderson, secretary of the Buffalo Board, had visited Quebec to ascertain what could be counted on from the Canadian Government, and reported that that Government would probably assume at least one-third of the cost if that did not exceed $15,000. Details relating to the channel to be improved, and other matters, were discussed and settled with commendable promptness. A dredging committee was chosen, and it was decided to go to work at once with the money pledged. Frank Williams, a civil engineer of Buffalo, was employed by the Board and went at once to the St. Clair. On May 3d he reported to the Board, recommending the improvement of the south channel. His recommendations were accepted, proposals were invited, and dredging promptly begun.[1]

It was a needed work, energetically undertaken and carried out in a prompt and businesslike way. Had it never accomplished anything else, the Buffalo Board of Trade

1. In 1842 a survey of the St. Clair Flats was made by Capt. Macomb, U. S. Topographical Engineers, and in 1852 another survey was made by the same officer and Capt. Caufield. These surveys showed that no changes of consequence had taken place in the channel during that period. Mr. Williams made careful examination of the North, Middle and South Channels, and recommended the last-named for permanent improvement. He proposed a channel for 12 feet of water, and figured the expense for 125 feet wide, for 200 feet wide, and for 300 feet wide, the location being substantially that recommended by Capt. Macomb. Mr. Williams' report to the Buffalo Board of Trade was printed in the Buffalo *Morning Advertiser*, May 7, 1855.

would have amply justified its existence. It was said by an enthusiast at the time of the convention, "an investment in the St. Clair Flats subscription fund would be as remunerative as in the best railroad or bank stock in the country."

At the annual meeting of this same profitable year, held March 12th, the Board adopted resolutions, recommending to its members, and to other Boards of Trade on the lakes, to establish and encourage regular shipping offices for sailors, as was done in New York and Boston, and have regular shipping papers on all vessels, as required by law. This was in order to put an end to abuses which grew out of the prevailing custom of engaging and shipping sailors through the vessel captains. A month later, it recommended the enactment of a law requiring railroads in New York State "to make weekly and yearly returns of all descriptions of produce received and transported by them from lake ports, and delivered at tide water; also the quantity and description of all freight received at tide-water, and delivered at lake ports." It also favored a bill, then pending in the Legislature, imposing a toll on railroads, which it was thought would tend to equalize things with the tolls-burdened canals.

V. Incorporation—A New Beginning.

The first period in the history of Buffalo's Board of Trade was that of its occupancy of the Prime-street building. Its first dozen years or so of life cannot be called notable, although, as we have seen, it originated one important project and shared in others. In July, 1847, was held at Chicago, the first River and Harbor Convention which had a national character. It was a well-conceived effort to rouse the Federal Government to action in aid of the harbors and channels of the Great Lakes. New York State was ably represented, and a prominent Buffalo man, James L. Barton, was temporary chairman of the convention on July 5th, the opening day. Little immediate result followed, but the convention, as an expression of opinion, was the opening wedge of a great work.

At the second annual election of the Buffalo Board, Mr. Heywood was reëlected president; and he was again chosen at the third election, which was the first held in the new building, March 10, 1846.[1]

In the spring of 1855 rooms in the Merchants' Exchange were newly fitted up for the Board of Trade. During the preceding season they had not been kept open, nor had the Board held daily meetings. Now, however, it was proposed to do better. "The rooms," said the Buffalo *Commercial* of April 19th, "which are now to be kept open daily, are in every respect worthy of the important interests to which they are to be devoted.

"The rooms are two, having tables, on which are placed books for the entry of the current exports and imports of the port, daily market reports, and for the display of samples, and an octagonal desk for writing purposes, while the newspaper files hang upon the hooks about the walls of the rooms, in which are placed the various commercial papers of the country, taken by the board. This last arrangement is peculiarly an excellent one. When reference to a paper is wished, the file is taken from the hook, the reader sits down, peruses it to his satisfaction and then replaces it upon the hook. Thus mutilation or loss is rendered next to impossible.

"The walls are beautifully papered, and adorned with busts of Clay and Webster. The floors are covered with oilcloth, and neatly-finished chairs and divans are ranged about, sufficient to accommodate a large assemblage. Altogether, nothing like it has ever before been enjoyed by the Board of Trade of this city, and for the details of the arrangement they are indebted to the excellent taste of Mr. C. D. Gibson. The only evil results to be apprehended are, that the neatness and comfort of the place will tempt members to frequently resort to it, and, perhaps, over-speculate!"

In 1856 the election was not held until May 6th, when M. S. Hawley was made president, J. Parker first vice-president, W. A. Fox second vice-president, and the following directors were chosen: H. M. Kinne, S. K. Worthington, S. W. Whiting, D. N. Tuttle, William Fleming, H. A. Smith, O. Bugbee, J. B. Griffin, W. D. Walbridge and Samuel Morgan.

1. A complete list of the presidents and years of their service is appended to this sketch.

During this year, after much discussion, it was decided that the original constitution and by-laws were no longer adapted to the conditions of trade that had developed, and steps were taken for incorporation. Application was made to the Legislature, and on March 3, 1857, a charter was obtained. The original incorporators were Russell H. Heywood, George Palmer, Jason Parker, John T. Noye, Sidney Shepard, H. Rainey, J. C. Evans, G. T. Williams, H. Roop, Bronson C. Rumsey, William G. Fargo, L. K. Plimpton, G. R. Wilson, H. Roop, Myron P. Bush, A. Robinson, H. Niles, H. A. Smith, J. R. Lee, P. L. Sternberg, Richard H. Sherman and Carlos Cobb. The first meeting for the election of officers under the new charter was held March 7, 1857, at which George S. Hazard was elected president.

The charter under which the Board took new lease of life in 1857, carried, with the usual provisions, a few stipulations of special interest. It specified that the capital stock should be not less than $10,000, the trustees having power to increase it to $100,000. The shares were fixed at $25 each. The annual election was to be held on the second Tuesday in April of each year. A provision was made for life memberships and also for permanent memberships. The trustees were empowered to invest the capital stock and other funds of the Board in bonds and mortgages on unencumbered real estate within the State and in other approved securities, and the following stipulation was made:

"When the said corporation may have accumulated the sum of $50,000 . . . it may keep the same securely invested as a permanent fund and apply the excess of accumulations to the payment of interest and redemption of the outstanding stock, or donate the sum to charitable purposes; providing, however, the said trustees shall have secured suitable apartments to be used for the ordinary purposes of the said Board of Trade."

An Arbitration Committee was provided for to whose decisions matters in controversy were to be submitted.

The by-laws, approved May, 1857, made the usual provision for election of officers and specified their duties. They also provided for the election of a salaried secretary,

whose duties were specified at length, one of them being the collection of statistical matter for annual publication, but it was added, "no person shall be eligible to the office of secretary who shall be connected with a newspaper press in this city as reporter, editor or proprietor, unless the newspaper be published under the auspices and control of the Board of Trustees."

The annual statement for some preceding years had been compiled and edited by the commercial editors of various Buffalo papers. Mr. John J. Henderson, commercial editor of the *Daily Republic,* and later of the *Democracy,* had prepared it for some years. In 1855, David Wentworth of the *Daily Republic* compiled it. Mr. Henderson, who had become secretary of the Board of Trade by 1855, was serving Buffalo in that capacity and as commercial editor of the *Courier* in '57, when the new charter came into effect. From this time on, for some years, he appears to have dropped newspaper connection and devoted himself to his duties as secretary of the Board of Trade. That he was well equipped for that task the annual reports which he prepared well prove. The sixth annual statement of the "Trade and Commerce of Buffalo" which Mr. Henderson compiled for the year 1857, is an especially valuable review of business conditions in that year of great financial crisis. Although it brought bankruptcy or suspension to many houses here as in many other business centers in the country, the men of the Board of Trade weathered the adverse period and instead of lamenting over the disasters of the past, bravely addressed themselves to the problems of the immediate present. We find in the report of the Board for that year that great hopes were placed upon the prospective construction of the international bridge across the Niagara between Black Rock and Fort Erie, and especially upon the expansion of business likely to follow the completion of the Erie Canal enlargement. It was an era of railroad activity, many new lines being projected, and some construction under way. And while we find the Buffalo Board of Trade anticipating the increase of business that would follow canal enlargement, we find it also advocating a reduction of tolls,

as indeed it continued to do until finally all tolls were abolished.

The decade of the '60's saw little substantial growth in the organization. It was a trying time for all commercial enterprises and the Board of Trade did well to continue to live. Even in these discouraging years, the organization originated some important movements and shared in others. On April 10, 1860, Chicago's grain standard was adopted. It was not, however, until June 12, 1877, that a call board was established in the Exchange room.

On March 14, 1862, the Board addressed Congress with a memorial, urging the location of a national armory at or near Chicago. In doing this, it shared in a very general movement on the part of the commercial bodies of the country. Home matters continued to receive its attention year after year, usually in the form of petitions to the Common Council to dredge Buffalo Creek and improve the harbor, or in the sending of delegations to Albany to promote canal interests.

VI. On Central Wharf.

On Thursday morning, June 26, 1862, the Board of Trade took possession of its new quarters in a building owned by the George C. White estate on Central Wharf. The lease ran for five years at $750 per annum. The room itself, on the second floor, was a large one, extending from the dock to Prime Street, being 94 feet deep by 34 feet wide, with a ceiling 14 feet above the floor. Handsomely furnished, well lighted and ventilated, it became at once a popular place of resort with merchants, vessel owners and business men generally.

At 11 o'clock on the day named the place was thronged, not the least attraction being what was described in a paper of the day as "an elegant and bountiful collation of meats, fruits, wines, etc." Mr. George C. White, president of White's Bank, presented to the Board five baskets of champagne, sending also a note in which he proposed this toast:

CENTRAL WHARF, BUFFALO.

HOME OF THE BUFFALO BOARD OF TRADE, 1862-1863

"The Buffalo Board of Trade. May its meetings always be harmonious and mutually advantageous, and its members always prosperous and happy."

This sentiment was vociferously hailed; and President George S. Hazard, opening the first bottle, poured for ex-President Millard Fillmore, Hon. N. K. Hall and Dean Richmond, who sat beside him, and filling his own glass, rose and drank with the guests.

President Hazard's speech on this occasion shows that the Board of Trade had fallen into a decline, either of interest, of usefulness or of finances—or as was probably the fact, of all three. "We have met here today," he said to the crowding guests, "to resuscitate the Board of Trade, to invigorate it with new life, to incite it to increased usefulness, and to dedicate this beautiful and appropriate hall to Trade and Commerce. I congratulate you," he continued, "on this auspicious commencement of a new era. It betokens a determination to reëstablish this institution on a reliable and permanent foundation, and as it was the first organization of this character west of the city of New York, let it be your endeavor to make it first in usefulness."

Mr. Hazard continued at some length, pointing out the advantages bound to accrue to Buffalo from an active Board of Trade; defining the objects and purposes of such an organization, which he said were not only the daily routine of 'Change, "but to establish and promote equitable principles and laws of trade, to reform abuses, correct inconvenient and useless customs, and establish those more in accordance with the spirit of the age; to establish a tribunal for settling disputes among its members without resort to expensive and vexatious litigation; and, generally, to protect the interests of the mercantile classes." He passed on to give his conception of certain daily details of such an organization:

"There should be a daily exhibit of the state of your market as well as the markets of those cities with which you are in constant intercourse; the import and export as well as inland movement of all the great staples of the country; weekly and monthly statements of receipts and shipments; and yearly returns of the general business, commercial,

manufacturing and banking, of your city, and in fact all statistical matter which can be of any use to the members of your Board."

He made a forceful application of the adage, "In union there is strength." It was a time in our national history when any suggestion of "union" stirred the heart of the Northern patriot, and Mr. Hazard's admonitions were cheered with a fervor which was deepened by the thought, at the back of every man's mind, of his country's crisis and what it might signify.

No address on such an occasion would have been complete without reference to the growth of Buffalo's commerce. Mr. Hazard reminded his hearers that twenty-five years before, the entire receipts of breadstuffs at the port of Buffalo amounted to only about one million bushels. Ten years later the receipts had increased to thirteen millions of bushels. The next decade gave us over twenty-two millions of bushels; and five years later, bringing us down to 1861, the returns showed the "enormous receipt"—as it then seemed—of fifty-eight millions of bushels. "As no other port on the face of the earth," added the speaker, "can compare with this, Buffalo stands unrivalled." And again the crowd—the men who had in good measure brought about this state of things—cheered their president, as they had good right to do.

It was in fact, a jolly "recuscitation," and the exercises ran on for hours with so many pleasant features that it took the Buffalo *Commercial Advertiser* two days to complete its report of them. Ex-President Fillmore's health being proposed, he was forced to speak. He told of what he had seen in the way of commercial exchanges abroad, and added the usual congratulations to Buffalo.[1] Other toasts and speeches followed, among the speakers being Henry W. Rogers, George B. Hibbard and William Williams. President Hazard no doubt observing that the prevailing state of mind was favorable to a little business, reminded the assemblage that there was not a dollar in the treasury and that the

1. For Mr. Fillmore's remarks on this occasion, see XI, Pubs. Buf. Hist. Soc., 67, 68.

Board needed new members; whereupon 103 new names were affixed to the secretary's books and over $1000 paid in as dues.

It was not until January 15, 1863, that telegraph wires were extended to the Board of Trade rooms. A merchant of today would be amused and amazed at the methods employed before the "wire" came into common business use. Even after its introduction very slight use was made of the telegraph for ordinary business transactions for many years.

In this year of 1863, the flour dealers of Buffalo asked for a flour inspector, to settle their differences and establish a standard. On April 16th, also of this year, a standard bill of lading was adopted and a Conciliation Committee was created to settle differences arising among the members. In the next dozen years probably not more than half a dozen cases arose of serious difference. Some of these were amicably adjusted, while in one or two cases members were expelled.

From time to time the Board renewed its lease of the Central Wharf rooms and although the growth of the institution hardly seems to have warranted it, yet steps were early taken towards the securing of a building for the Board's own use.

In 1870 William Thurstone as secretary published his first annual statement of the trade and commerce of Buffalo. It was the first of the long and valuable series of statistical pamphlets which he prepared, and the first official report of the kind sent out by the Board since 1865. The earlier reports, compiled by John J. Henderson (and in 1854 by David Wentworth) had been followed in the early '60's by the work of E. H. Walker of the Buffalo *Commercial Advertiser*. The statements for 1863-'65 were prepared by him; from that date until 1870, although one or more of the Buffalo newspapers printed annual reviews of the year's commerce, the Board of Trade does not appear to have accepted them as official. Mr. Thurstone's report for 1869, a thick pamphlet of 152 pages, packed with commercial statistics, marked the resumption of a series of reports which continues unbroken to this day.

In July, 1869, a daily commercial circular was issued under the sanction of the Buffalo Board of Trade, and continued until the close of navigation; after which it was for some time published as a weekly. This method was followed in other years. Copies were furnished to other Boards of Trade and Chambers of Commerce in the United States and Canada; its foreign exchanges included the *Mark Lane Express* and the *English and Foreign Trade Gazette* of Liverpool. The Buffalo Board of Trade was the first to issue such an official publication.

At this time the Board of Trade had 393 members, of whom 186 held stock. The income received from members in 1868 was $4210, and the corporation stock was invested in two $10,000 Government bonds. The building proposition was laid aside so far as any practical steps were taken until some years later; and in June, 1870, the lease of the old quarters was renewed for another five years.

The new by-laws, passed April 21, 1868, were much more explicit than those they superceded, on the powers and duties of officers, the manner in which elections should be held, and other matters. They provided standing committees on finance, reference and appeal and arbitration, and specified their duties. To join the Board, an applicant had to be nominated by two or more stockholders of the corporation, or other members, pay the annual dues and sign a paper agreeing to abide by the rules and regulations as prescribed. Members could be expelled by a three-fourths vote of the trustees.

One step taken in 1872, worthy of record, related to the inspection of grain. On April 22d a committee of the Board, consisting of Jason Parker, George S. Hazard and R. R. Buck, to whom the matter had been delegated, reported in favor of the adoption of a uniform system of inspection, "more especially for cargoes shipped at ports where no inspection exists; that a suitable inspector be appointed, and that the same standards for inspection be adopted as those now in force at Western ports." These recommendations were in due time carried out. By a resolution of the Board, Sept. 18, 1874, the number of bushels

constituting a boat-load of grain was fixed at 7,800 for wheat, 8,300 for corn, and 14,000 for oats.

VII. The Board of Trade Adopts a Regiment.

From the outbreak of the Rebellion, the Board of Trade found its attention more and more diverted from the ordinary channels of business to the great emergencies of the nation. Individually and collectively its members shared in the general community devotion to the recruiting and equipment of regiments. The first year of the war, with its heavy reverses, did not tend to increase the bulk of business; but it did increase and strengthen the bond of sympathy among the business men of Buffalo.

Early in 1862, the 100th Regiment, New York Volunteers, had left Buffalo, numbering 960 men. That regiment, which meant so much to the homes of Buffalo and Western New York, was in the thick of the fight at Fairoaks and in other engagements of that campaign, so that by July, 1862, its enrollment of 960 had been reduced to 451, rank and file. The fatal field of Fairoaks well nigh wrecked the 100th Regiment. It became a question whether it would not be wiped out by consolidation with other regiments and corps. The pride of Buffalo was touched. The regiment from its first recruiting had meant so much to this community, so many homes had given their young men to it, that it was but natural that there should exist a strong local desire to fill up the ranks and continue its organization.

The Board of Trade took up the matter. On July 24th, at a special meeting held after the 'Change hour, President Hazard in a feeling address made a plea for raising a liberal war fund by subscription, to be devoted to the enlistment of men. At this meeting and at others which followed, the movement was at first merely an expression of the patriotic impulse of the community to give prompt and efficient aid to the Government. Before long, however, the efforts of the Board of Trade became centered upon this depleted Buffalo regiment. At a meeting on July 25th, it had been proposed

that the Buffalo subscription be especially devoted to recruiting the 100th Regiment and that it should be known as the Board of Trade Regiment. It took a day or two for the suggestion to strike root, but on July 29th the War Committee, to which this proposition and others related to the war fund had been referred, made a report which was destined to produce great results. "In view," said this committee, "of the gallant conduct of the 100th Regiment in the recent severe battle of Fairoaks, its necessities in consequences of heavy losses of men, with no friendly hand stretched out to save their dearly-earned reputation from oblivion, your committee would earnestly recommend the adoption of the 100th Regiment by the Buffalo Board of Trade, and that prompt measures be taken to fill its ranks with good able-bodied men."

The meeting at which this report was read had drawn to the Exchange an unusual number of citizens. The Board room was packed as were the open galleries adjoining, and when the Board by unanimous vote adopted this resolution, a cheer went up that carried the news the whole length of old Central Wharf.

It was a moment of enthusiasm, but it was not the sort of enthusiasm that flares up and dies out. Before adjournment the Board of Trade had voted that it would procure and present a handsome flag to the regiment, which from this time on was to be its own. Then began the serious work of getting subscriptions. Men considered what they could do and acted promptly.

Charles Ensign offered his splendid new steamer, the Badger State, for a public excursion for the benefit of the fund. The Messrs. J. C. and E. T. Evans made a similar offer of their steamer Merchant. The first of these excursions netted $1696. Thomas Day gave four building lots in the park which bears his name. These found buyers at a substantial figure. William H. Beard, the artist, gave an exhibition of one of his paintings, "The March of Silenus," for the benefit of the fund. Henry E. Perrine pledged himself to send to the front four men at his own expense. Others individually or for the elevator or various other interests

which they represented, subscribed liberal sums of money; so that early in August there was available for this work of reconstructing a regiment over $22,000. The list of Board of Trade subscriptions to this great cause, as it has been preserved in the records of the regiment, is as follows:

Chas. J. Mann	$ 350 00	Bissell & Bridgeman ..	$ 150 00
George S. Hazard	350 00	James G. Stevens	100 00
Samuel J. Holley	100 00	Junius S. Smith	100 00
J. M. Richmond	500 00	G. Malcolm	100 00
A. W. Cutter	100 00	D. W. Irwin	100 00
A. Sherwood	250 00	Elmore H. Walker	25 00
Kinne & Co.	200 00	D. W. Tuttle	100 00
S. K. Worthington ...	200 00	Jason Parker	100 00
J. R. Bentley	200 00	P. L. Sternberg	200 00
Van Buren & Co.	200 00	Swan & Thayer	100 00
Lewis B. Joy & Co. ...	250 00	Henry B. Miller	100 00
E. S. Prosser	500 00	Wm. C. Foster & Co. ..	25 00
Thomas Clark	500 00	F. W. Patterson	100 00
Stewart, Graves & Co. .	300 00	S. W. Derrick	100 00
D. S. Bennett	500 00	R. C. Palmer	100 00
A. W. Horton	100 00	A. J. Holt	200 00
Morse & Nelson	100 00	A. Grote	25 00
John G. Deshler	200 00	Laurens Enos	200 00
Nims & Gibson	200 00	J. C. Harrison	200 00
N. C. Winslow & Co. .	250 00	W. O. Brown	300 00
H. P. Bridge	200 00	A. L. Griffin	100 00
Chas. W. Wolf	100 00	G. J. Whitney	25 00
F. L. Sheldon	200 00	A. T. Blackmar	250 00
Lee & Scofield	100 00	H. A. Frink	250 00
Cyrus Clark	100 00	E. Gilbert	100 00
James D. Sawyer	100 00	Frank Lee	50 00
Wm. Petrie & Co.	200 00	D. S. Austin	100 00
S. S. Guthrie	100 00	Cobb & Co.	100 00
G. J. Heimlich	150 00	G. C. Coit & Son	150 00
Stephen W. Howell ...	400 00	Richard Williams	25 00
J. M. Matthews & Co. .	150 00	William Dickson	100 00
Mixer & Smith	100 00	George Richardson ...	25 00
C. H. Morse	100 00	C. Vosburgh	50 00
Griffin & McDonald ...	200 00	S. H. Rumrill	100 00
L. K. Plimpton	200 00	Wm. Williams	300 00
S. Cary	100 00	A. M. Johnstone	50 00
Stimpson & Grant	150 00	P. J. Ferris	50 00

John L. Jewett	$ 100 00	Fish & Avery	$ 50 00
Wm. Monteith	100 00	Fish & Armstrong	50 00
Chas. Ensign and John Allen for the Marine Elevator	500 00	Charles Ensign	500 00
		George Urban	100 00
R. S. King	200 00	M. S. Hawley	100 00
E. P. Selsmer	25 00	M. R. Eames	100 00
S. G. Cornell & Co.	100 00	J. C. & E. T. Evans	500 00
Sheldon Pease & Co.	100 00	Myron P. Bush	250 00
Thomas Day, donation of 4 lots Day's Park, net proceeds	700 00	W. C. Davidson	50 00
		H. Niles & Co.	100 00
		John W. Gardner	50 00
		O. N. Chapin	20 00
Chas. Ensign, proceeds of excursion steamer Badger State, net	1,696 00	Henry E. Perrine, subscribed 4 men which he sent to the front at his own expense	
Wm. H. Beard, artist	100 00		
Proceeds of Wm. H. Beard's picture "March of Silenus"	50 00	Brownell & Boyd	100 00
		Cash (unknown)	5 00
H. E. Howard	100 00	Alexander W. Harvey	200 00
Dean Richmond	500 00	Chas. W. Evans	250 00
Niles Case	50 00	Henry Daw & Son	100 00
Robert Montgomery	100 00	Williams, Fargo & Co.	500 00
Jerry Small	25 00	Western Transit Co.	1,500 00
		W. R. Strong	100 00

There is much in the above list that will awaken war-time memories for many residents of Buffalo who are still living. The excursion of the Badger State was a gala affair, shared in, as the receipts attest, by a large number of excursionists, who found a lake ride an agreeable way to give patriotic aid. William H. Beard's painting, "The March of Silenus," became the property of the Buffalo Fine Arts Academy, which is still its fortunate possessor. What Mr. Henry E. Perrine spent in equipping four men for the front, is not recorded, but obviously it was a generous subscription to the cause.

The work of recruiting was vigorously taken up. Besides the regular recruiting office, a tent was set up at the foot of Main Street, where men were examined and enrolled. The following advertisement—no doubt unique among the documents of the Boards of Trade of any American city—was printed for some weeks in the Buffalo papers and helped to gather in the recruits.

BOARD OF TRADE REGIMENT.

The 100th New York Volunteers

400 MEN WANTED

TO FILL UP THE RANKS OF THIS EXCELLENT and veteran Regiment, who have so nobly borne themselves in all the duties and battles from Yorktown to Richmond.

The Board of Trade of the City of Buffalo, recognizing the services of the 100th, have adopted it as the

Board of Trade Regiment,

and with munificent liberality, have subscribed

$20,000

FOR EXTRA BOUNTY & PREMIUMS

To induce young volunteers to enlist in the war worn 100th. The families of volunteers will also be insured attention and support.

JOIN AN OLD REGIMENT.

Your duties from the start will be less severe. Your officers have had experience! Your comrades are veterans! The dear-bought lesson of learning camp life for new regiments, are obviated, for your comrades have learned them and know how to live.

The President of the United States, the Generals in the field, the Governor of the State, all prefer that the

Old Regiments Should be Filled Up!

Join the Board of Trade Regiment!

$28 BOUNTY OVER ANY OTHER REGIMENT.

Bounties Before Entering Service:

State Bounty	$50
United States Bounty	25
Premium	3
One Month's Pay in advance	13
Board of Trade Bounty	25
Board of Trade Premium	3
Cash in adv. nce	$119

Further Bounties—On expiration of service, $75—160 acres of land—Medical attendance and clothing, free—Subsistence and transportation free.

FREEMEN! Rally to the rescue of our country men. Fill up the ranks and march victoriously into Richmond.

Join the Gallant One Hundredth!

BOARD OF TRADE COMMITTEE:

Hon. E. S. Prentice,	Hon. S. J. Holley,
Hon. J. G. Deshler,	G. S. Hazard, Esq.,
L. K. Plimpton, Esq.,	S. W. Howell, Esq.,
D. S. Bennett, Esq.,	A. G. Williams, Esq.,
C. J. Mann, Esq.,	J. M. Richmond, Esq.

☞ Recruiting Office over Morning Express Office, and in the tent at the foot of Main street.

Captains NICHOLSON, DYE, MORSE,
Recruiting Officers.

au21 l4&ct13

As the work of recruiting went on, the Board of Trade accepted gratefully the assistance of the Hon. Orlando Allen. From Aug. 1st to Oct. 1st, 1862, 345 recruits were added to the regiment. Gen. Gustavus A. Scroggs, elected colonel of the 100th by its line officers, declined to serve. A young artillery officer in the regular army, who was highly recommended to the Buffalo Board of Trade and whose record President Hazard was at pains personally to investigate, was appointed Aug. 26th. This was Captain George B. Dandy, who, as colonel of the Board of Trade regiment, was to lead it on many a hard-fought field, winning for himself not only the reputation of a thorough soldier, but a commander always considerate of the welfare of his men and a general who enjoyed the respect of all who knew him.

The story of the regiment in detail cannot appropriately be told here; that belongs to the military records of our country and has been adequately chonicled by other hands.[1] One event, however, should be included here, because it forms not only a part of the history of the regiment, but a part of the history of the Board of Trade. On November 16, 1862, at Gloucester Point, Virginia, formal presentation was made to the regiment, in the name of the Buffalo Board of Trade, of a beautiful flag. It had been consigned by the Board of Trade to the hands of the regimental chaplain, Captain J. B. Linn, and on Sunday morning of the date mentioned, the regiment being drawn up in line, Colonel Dandy with his staff in front, Chaplain Linn presented the flag to the Colonel with the following remarks:

"*Fellow Soldiers:* The cause in which you are engaged is one that ever excites the greatest sympathy among our friends at home. I need not say how deeply they are interested in your behalf and success. Our country cost too dear a price to be easily sacrificed now. Those institutions which we all so dearly love are threatened with subversion. To you they look with confidence, to you they look for aid in her defense. To this regiment you all well know the Board of Trade of the city of Buffalo have recently bestowed

1. "History of the One Hundredth Regiment of New York State Volunteers," etc., by Geo. H. Stowits, Buffalo, 1870. 12 mo., pp. 424.

especial care. With you have they cast their lot. Prove yourselves, then, worthy of their patronage. Prove to them that their lot has been cast with those who have inherited the spirit that actuated the associates of Washington and Schuyler. In behalf, then, of the Board of Trade of the city of Buffalo, to assure you of their sympathy and coöperation, to arouse you to increased exertion and patriotism, I present you this flag. May it never be sullied by defeat, nor blighted with the mildew of treachery."

Colonel Dandy receiving the flag from Chaplain Linn in a short response expressed the gratitude of his regiment to the Board of Trade for its beautiful gift. "This banner, I believe," he said, "will never be suffered to trail in the dust. Should we have the high privilege of taking it into battle, we will endeavor to bring it back in honored safety."

Another stand of colors was presented to the regiment, January 10, 1863, the tattered remnants of which, with those of the first flag, are preserved by the Buffalo Historical Society.

The relations of the Board to the officers and men of the regiment became pleasantly intimate. On January 5, 1864, Col. Dandy delivered an address on the Exchange floor, in which he reviewed the history of the regiment. Speaking of what the Board of Trade had done for it, he exclaimed: "Would to God other organizations throughout the country had generally followed your example! What defeats might have been prevented, what disastrous routs, what toilsome marches, what disgraceful retreats! You found the regiment a skeleton; you gave it heart and lungs and blood and brain and muscle." On February 1, 1865, the Board gave a public reception to the veterans of its regiment. The rooms were trimmed with bunting and flags, and some 200 of "the boys in blue," enjoyed the hospitality of the Board and listened to the address of President Hazard.[1]

1. There is still preserved an old visitors' register of the Board of Trade, in which the first entries are the names of Chicago delegates to the St. Clair Flats convention of April, 1855; but most of the entries are of the Civil War period, and many relate to the 100th Regiment. On the date of the reception above noted, 159 of the veterans inscribed their names. Other pages hold interesting records, *e. g.*, under Apr. 29, 1863, one may read: "Cyrus W. Field addressed the audience on the subject of the Atlantic cable"; Oct. 10, 1863,

The generosity and patriotism of the men of the Board of Trade were not confined to the 100th Regiment. They gave thousands of dollars in aid of recruiting, or of sanitary and relief societies, and kindred purposes. It was a time when constant appeals were made in every Northern city to all who could give, and probably, if the facts could be gathered, it would appear that this subscription to the 100th Regiment, generous as it was, did not after all represent more than half of what the Board of Trade gave during the Civil War as voluntary aid to the Government.

A word should be added to complete the story of the adopted regiment, in connection with the Board of Trade. President Hazard wrote on July 30, 1862, to Major C. N. Otis, at the front, stating what the merchants of Buffalo had done for the 100th Regiment. The letter was read in camp near Harrison's Landing, August 6th, and a meeting of the officers of the 100th held at the tent of Quartermaster Bishop. Bringing as it did assurance that this depleted regiment should not be wiped out of existence, but was not only to be recruited but guaranteed in its maintenance, we may readily believe that Mr. Hazard's letter stirred in no ordinary way the emotions of the men to whom it was sent. The regiment drafted a reply, in which they not only thanked the Buffalo Board of Trade, but made acknowledgment in phrases of unusual fervor of their appreciation of the action of the Buffalo Board in raising funds for their regiment. "We hereby pledge ourselves," the resolutions concluded, "as we have been highly honored, to use our best endeavors to prove ourselves worthy of the honors thus conferred and that by no act of ours shall the Board of Trade have occasion to regret the action thus taken." It never did regret it. It watched over the fortunes of the 100th Regiment to the end of the war. The details of the service of that regiment may not be entered upon in this sketch.

"Hon. Samuel Butler addressed the Board of Trade on the subject of the reconstruction of the pier and harbor at Fairport, O."; July 30, 1864, "Col. Taylor of East Tennessee addressed the board on the distress in East Tennessee," etc. June 16, 1866, Major General Meade was a guest of the Board, and on July 28 of that year Lieutenant General Sherman was received there.

That it bore not merely an active but a gallant part in a score of sieges, assaults and battles is matter of familiar record in the history of the Rebellion. From its organization to the close of the war the records show the names of 1825 men connected with the regiment. Many of these names are those of old Buffalo families, of young men whose untimely death brought great grief into this community, or of others who, surviving the war, have been and in some cases still are active and prominent in the life of Buffalo to this day.

It has been said that the Buffalo Board of Trade made the 100th Regiment the largest regiment in the Department of Virginia, and that Col. Dandy made it the best.

VIII. The Financial Side.

The finances of the Board at this period can hardly be said to have flourished. On April 2, 1864, the by-laws were so amended that any one on the payment of $10 yearly could become an annual subscriber. Five dollars was fixed as a membership fee for the partners of members, or their clerks who were themselves unable to share in the privileges of the floor. In 1866 the by-laws were again revised, so that any one owning four or more shares of stock should be entitled to all the privileges of membership and exempt from dues and assessments. Up to 1867, 400 shares of stock, at $25 a share, had been issued, amounting to $10,000. On April 10th, the capital was increased to $20,000. The next year a further revision of the by-laws fixed the annual dues at $20 for residents and $40 for non-residents. Dissatisfaction greatly increased on account of the inequality of privileges of stockholders, and stockholders' advantages over members who held no stock came to be regarded by the latter class as unjust and to their own detriment. In 1870 the annual dues were further increased to $25 subject to a deduction for stock, $5 of the amount being for the benefit of the open Board.

By the spring of '68 the capital stock had increased to $30,000 and at a meeting of the trustees, on motion of Frank A. Sears, it was voted that a committee of three should report at an early date the most feasible plan for the erection of a building. This appears to have been the first step taken in the matter. Nothing came of it at the time. A little later the Finance Committee was instructed to report on suitable sites and did report August 14th of that year in favor of the purchase of three pieces of property, all on Prime Street, owned respectively by George R. Babcock, estate of George Palmer and Stephen G. Austin, the total valuation amounting to $53,000. This proposition, in turn, was reconsidered and tabled, but the following month we find the Finance Committee again reporting at considerable length on the advisability of the purchase of properties at the foot of Main, running through to Washington Street, and fronting on Ohio Street, owned by E. G. Spaulding, Captain E. P. Dorr, William H. Greene and John T. Hudson. The whole parcel was 33 feet front on Main, 210 feet on Ohio, 101 feet on Washington, affording 279 feet of building front and 345 feet of water front on the Creek. The estimated cost of this property was $118,000, or $561.90 per foot, taking the Ohio-street frontage as a basis. This the committee thought not unreasonable and a purchase appears to have been seriously considered. When, however, the proposition was submitted to the stockholders, September 22nd, they voted an indefinite postponement.

Although in some years running expenses exceeded the income so that there was a deficiency to make up, yet the stockholders received yearly dividends, in one case as high as 25 per cent. In 1873, with view to increasing the income, it was recommended by the committee that the funds then invested in Government bonds which drew interest at six per cent. in gold, of a par value of $20,000, but of a market value stated at $23,400, be reinvested in bonds of the Buffalo & Washington Railroad which could be bought for eighty-five cents and which paid six per cent. interest. This, it was argued, would increase the income by about $500 yearly. Favorable as the proposition appeared, it was de-

clared inadvisable and instead of making the transfer the Board endeavored to reduce the deficiency by sundry minor economies.

With a view to realizing more on the accumulations it was voted May 25, 1875, to sell the Government bonds and deposit the proceeds in the savings banks of Buffalo until they could be profitably reinvested. In June the $20,000 of bonds were sold at $1.18¾, netting $23,712.50, and were placed in various banks. Within a few months the Board purchased Buffalo city bonds of various issues to the amount of $26,125.49, and the April balance sheet of 1876 showed a total higher than had ever before been reached, of $34,079.28.

The increase in profits, however, from the invested funds, did not in the least allay the dissatisfaction among members. It became evident that a thorough reorganization was inevitable. In 1878 we find the Board addressing itself in a businesslike way to the wise settlement of its own difficulties. The legal counsel for the Board, Mr. George B. Hibbard, in response to an official request, wrote a long statement in which he replied to the following inquiries propounded by President Richmond:

1. Have the trustees of the Board of Trade a right to divide to the stockholders any part of the capital stock or its accumulations until said stock and accumulation shall amount to $50,000?

The legal adviser at great length answered No, unless power was secured through new legislation.

2. Have the stockholders the right to dissolve this organization?

Again Mr. Hibbard replied No, except as the statutes of the State provide.

3. Can this present Board be so changed in its management as to allow all its members an equal voice?

No, that could not be done either, as the law stood.

4. Is there a general law of the State under which Boards of Trade can be organized?

Yes, the Act of May 3, 1877, was ample.

5. If it is thought advisable to reorganize this Board of Trade under the general laws of the State so that each member can have an equal voice, in what way can we retain the present funds now held for the purpose of erecting a Board of Trade building?

To this the attorney could only say in substance that new legislation would be necessary.

Mr. Charles A. Sweet presented a petition asking for the reorganization of the Board of Trade. An outcome of the long discussion was the appointment of a committee of five, two of whom were trustees and two stockholders not trustees, the president having a casting vote, to investigate and report on the whole subject of reorganization. Associated with the president on this committee were Charles A. Sweet, Alfred P. Wright, Cyrus Clarke and James D. Sawyer. It was voted at that time that a stock-book should be opened for subscribers to the amount of $100,000, with a view to the erection of a suitable up-town building. The following petition appears on the official minutes of the trustees at this period:

"We, the undersigned, owners of stock in the said Board of Trade, believing that the best interests of our organization demand a reorganization of the same upon a basis of equality of membership, respectfully request your Honorable Body to take immediate steps for the said reorganization upon popular basis and dissolution of the present stock Board."

One hundred and eight names, representing 734 shares of stock, were signed to this petition.

On March 9, 1878, the committee on reorganization reported the majority report, signed by Alonzo Richmond, A. P. Wright, Charles A. Sweet and James D. Sawyer, stating that a reorganization could not be effected without special legislation, but that a new organization could be created under the State law of May 3, 1877, "which is entirely applicable to the wants of our trade." The report further recommended that the trustees call a meeting of the open Board and take steps to perfect a new organization.

Cyrus Clarke submitted a minority report, stating that in his view reorganization could not be effected without special

legislation and that he could not concur in the report of the committee "relative to a new organization outside of the present Board of Trade."

A supplementary report, signed by the full committee, said:

"Your committee recognizes the fact that they may be open to criticism in going beyond the legislation which created them, yet they believe it proper to say that the present seems an opportune time to push forward the project of a Board of Trade building. We respectfully urge upon your Honorable Body that you take such steps as in your judgment will forward the project of building such an edifice as will be adapted to the wants of the trade in our city and an ornament and honor to Buffalo."

The Board adopted the majority report.

At a special meeting of the trustees, April 23rd, of this same year, George Sandrock offered the following, which was adopted:

"*Resolved*, That a committee of five be appointed . . . to call a meeting of the open Board at an early day to lay before said meeting the condition of the affairs of the Board, showing that it is not advisable to continue the organization as at present worked on account of inability financially to furnish necessary attractions to the open Board; and that they recommend to said meeting the organization of an open Board for commercial purposes on a liberal and equitable basis, thereby cutting off the present stockholders' privileges and making all members thereof equal."

As such committee the chair appointed George Sandrock, Charles G. Curtiss, Howard H. Baker, F. L. A. Cady and Henry R. Jones.

April 27th, at an open Board meeting, Mr. Sandrock's committee made a long report on the financial situation. They showed by an array of statistics, 1867 to 1877, that the expenses for eleven years exceeded the receipts by $8907.71. Membership dues had fluctuated from $5235 in 1869 to $2635 in 1877. Sale of spaces of sample tables ran as high as $1516 in 1868, but touched bottom in 1877 at $127. Advertising wall space, which had netted $200 in 1868, brought in only $110 in 1877.

On the other hand, in spite of economies, expenses had grown. By drastic efforts various small savings were effected. The rent, newspaper subscriptions, telegraph fees, even the secretary's salary, were all cut down and yet it was necessary to make up a deficiency from the interest on the capital stock. "The balance of interest received during these eleven years, about $6000, was paid to the stockholders in dividends as follows: Fifteen hundred dollars in 1867, $800 in 1868, $4800 in 1877."

The report went on to say that figuring on two hundred paying members, if all paid the same dues, whether stockholders or not, there could easily be maintained a first class Board of Trade having funds enough to pay the necessary expenses to make the Board attractive to merchants, "but unfortunately for the interest of this Board as now organized, the stockholders have to be credited with ten per cent. on the amount of stock they own towards paying their membership dues, which so materially reduces our revenues as to compel the trustees to make this exhibit.

"The capital stock of the Board of Trade, unless it should sometime be used for providing the Board with a suitable building, is, in its present shape, a real detriment to the progress and best interests of the Board. Why not free ourselves from this incubus by allowing the trustees to pay to the stockholders in the shape of dividends the annual interest on the capital stock and all members whether they own stock or not join together to form a new Board on a fair and equitable basis; where no member shall be preferred over another and all alike share in the honors and responsibilities of conducting the affairs of the Board?

"This committee, all members of the present Board of Trustees, may possibly be accused of a design to break up the Board of Trade, but we assure you, gentlemen, that we are all animated with a desire to further the interests of our city and of the Board of Trade, of which we feel justly very proud; but we sincerely believe that the sooner we organize a Board of Trade on a more liberal and popular basis, the sooner will we be furthering our own and our city's best interests."

Reorganization, on the lines suggested, was resolved upon; but it was not until March 15, 1882, that a decisive vote on the proposition to build, was recorded. Subscription books were opened for additional stock, to the amount of $75,000, to be subscribed in shares of $25 each, the subscribers waiving all rights and privileges of trading on the open Board. The remaining $5875, authorized to be issued under the Act of May 29, 1868, was made subject to the same condition.

IX. The Move Up-town—The Merchants' Exchange.

On January 20, 1876, the building adjoining the Board of Trade was burned and the Board of Trade quarters were damaged by water. The loss was covered by insurance, repairs were soon made and various improvements undertaken, which had been long needed. Among these was the opening of an entrance from Prime Street, giving freer access to the Board of Trade rooms. The time had come, however, when not even such alterations as could be made in the old building made it suitable for the needs of the institution. The uptown movement of business had long since carried the business heart of the city far above the Terrace. The banking center had apparently settled at Seneca Street, or from there up for two or three blocks. The Board of Trade had in fact outgrown the old headquarters, and more and more the desirability was felt of establishing it nearer the banks and other principal business interests. As soon as this was proposed, certain members objected that any removal away from the water front would be disastrous. The majority, however, took another view. In 1880 the Board sought offers of uptown property. Several propositions were submitted, among others one from the owners of the Brown buildings, offering the entire block on the north side of Seneca, between Main and Washington streets, at $250,000. The Board of Trade took a favorable view of the offer and a committee was appointed to solicit subscriptions, but they found after some weeks of

canvassing that a surprisingly large number of the merchants of Buffalo would take no interest in the project. Only $28,000 was pledged and for a time the matter was dropped.

In April, 1881, another uptown Board of Trade committee was organized, headed by John B. Manning. Their business was to procure information as to uptown sites. By March 24, 1882, nine pieces of property had been offered and considered. Two sites soon appeared to be most favored. One was the old Western Hotel on the Terrace, which had become Police Headquarters, the other was at the northeast corner of Pearl and Seneca streets, owned by the William G. Fargo estate and occupied by the American Express Company. So strong was the rivalry between the advocates of these two sites that for a time it seemed as though the Board of Trade itself was in danger of being split into two organizations. The newspapers of the city were filled with the conflict. The Common Council of the city offered the old Police Headquarters site for $40,000, and many members of the Board of Trade and other citizens more or less personally interested, published a petition urging the purchase of this property. The trustees of the Board, however, preferred the other site. At a meeting held March 24, 1882, they voted in favor of the purchase of the Seneca-street property and passed a resolution to petition the Legislature for power to increase the Board of Trade stock to an amount not to exceed $500,000. While this action virtually settled the matter, it did not put an end to the public agitation. Steps were taken for the formation of a rival organization, to be called the Merchants' and Manufacturers' Building Association, which gave out that it would acquire the Police Headquarters property and build a Board of Trade thereon.

The morning of April 13, 1882, was an eventful one in the history of the Board of Trade. The meeting had been called to announce the result of the recent election of trustees. It was the largest gathering of members in the history of the Board and all were worked up to an intense point of excitement, so deep was the feeling which had grown up over the rival propositions. The city authorities, anticipat-

ing riotous proceedings, posted several policemen in the building.

Secretary Thurstone called the meeting to order and announced that the new Board of Trustees had elected J. F. Schoellkopf for president and the rest of the ticket associated with him. In the effort to avoid trouble, Mr. Thurstone announced that the usual inauguration ceremonies would be omitted and declared the Board adjourned.

Not willing to be thus tamely turned down, the retiring president, John B. Manning, endeavored to address the Board. Mr. Manning had been the most active of those who had organized the Merchants' and Manufacturers' Building Association, of which at this time he was secretary. Representing, as he thus did, the organized opposition to the avowed policy of the Board of Trade, there was no disposition on the part of most of the members present to give him a hearing. As he undertook to speak, a scene of wild confusion ensued. The members with few exceptions withdrew to the further end of the room. Shouts and jeers and calls came from all quarters. Somebody struck up "John Brown's Body" in which many others joined in a reckless spirit. Mr. Manning continued his efforts to speak and the uproar increased. Handfuls of corn were thrown about the room and yells of "Put him out!" "Sit down!" etc., came from all quarters. He doggedly held his post on the platform and delivered an address, little if any of it being heard by the audience, which was in greater part a statement of the course he had pursued, especially in negotiations with the city of Buffalo, and a justification of his own course of action.

Some of the cool-headed members sought to give Mr. Manning fair play and begged a respectful hearing for him; but the greater part were in a turbulent mood and finally with three cheers for several members who had interposed their suggestions, the meeting, which officially had long before adjourned, broke up. It was small wonder that after this exhibition of feeling against him, Mr. Manning should push forward the building project he had already espoused.

On March 30, 1882, the Merchants' and Manufacturers' Building Association had formally organized, electing George W. Tifft as president, Peter J. Ferris, vice-president, John B. Manning, secretary, and S. S. Spaulding, treasurer. Steps were at once taken to secure subscriptions, Mr. Manning and Henry L. Schaeffer being especially active in behalf of the project. Within a few weeks they had secured pledges of $140,000. Meanwhile the rival party, representing the Board of Trade, were also receiving many subscriptions, and as the summer wore on the community realized, as presently did the warring members themselves, that an attempt to build and maintain two institutions so nearly similar would be fatal to both. Ultimately the Terrace building project was dropped and before long most, if not all, the disgruntled members of the Board of Trade were giving their support to the Seneca-street enterprise, Mr. Manning's name being first in the list of trustees of the Merchants' Exchange, under the new incorporation.

A capable Building Committee, consisting of Jewett M. Richmond, Alfred P. Wright, Edwin T. Evans, Thomas Chester and M. I. Crittenden, were entrusted with the work of closing the deal and procuring plans; but more important than the erection of a new building was the reorganization at this time of the Board of Trade. The uptown move in fact was but an incident in the expansion of the institution. It was determined not only to give the new organization a broader scope than its predecessor had enjoyed, but to readjust the privileges of stockholders.

On March 28, 1882, the trustees issued a statement in which, after setting forth the plans for removal and buildings, they said:

"It is intended that the present organization, known as the Board of Trade, shall be the property-owning one, its stockholders waiving all rights to admission to the floor of the Exchange, but reserving all other rights as stockholders. It is also a part of the purpose of this Board of Trade, if satisfactory arrangements can be made with the organization now applying for a charter, known as the Merchants' Exchange, to lease to it the Exchange rooms in this building, inviting them to invest their capital arising from their initiation fees in the

capital stock of the present Board of Trade, which will be invested in the property purchased.

"It is further necessary to state to the public that the action of the Board of Trustees in the selection of a site meets with the general approbation of our members and it is sincerely hoped that all dissentions will now cease, and that when authority for additional capital is granted, the merchants of Buffalo will come forward and make the project in every way a success."

The Merchants' Exchange was incorporated April 14, 1882. [Chap. 59, Laws of 1882.] The act of incorporation bestowed the usual powers; authorized the corporation to hold real estate, to build, lease, etc. Its affairs were to be managed by thirteen trustees, to be elected annually on the second Wednesday in January. The first trustees were John B. Manning, Jacob F. Schoellkopf, A. P. Wright, J. N. Scatcherd, Edward B. Smith, C. A. Sweet, Pascal P. Pratt, H. G. Nolton, Wm. Meadows, E. L. Hedstrom, Wm. Hengerer, J. M. Richmond, and Philip Becker. The charter provided for the appointment of an Arbitration Committee of three, whose powers, duties and disabilities are the same as appertain to arbitrators under the laws of the State of New York; "and awards made by them must be made and may be enforced as therein and thereby directed"—in other words, they came under the Code of Civil Procedure. Membership was fixed at an initiatory fee of $100, annual dues at $25.

From the date of incorporation of the Merchants' Exchange, the Board of Trade has continued as the holding body, its presidents being the same as of the Exchange.

Designs and plans for the proposed building were advertised for. On June 12, 1882, fifteen sets of plans were received. Those submitted by Milton E. Beebe were accepted, and in August Mr. Beebe received his commission as architect for the Board and entered upon his duties.

The building that was erected in accordance with his plans, on the northeast corner of Seneca and Pearl, has a frontage of 132 feet on Seneca, and 60 feet on Pearl. It was originally just 100 feet high, consisting of seven stories and basement, but the basement having a rise of five feet

above the level of the pavement, made it practically eight stories. At this period steel-frame construction was in its infancy. The girders are of iron, but the sustaining walls are of brick, with a profusion of cut stone and terra cotta ornament. The main entrance in the middle of the Seneca-street front, was by an arched doorway, eight feet wide, flanked by granite columns supporting elaborately-carved capitals. The area of window-space was large, and a striking feature of the facade was the arched top of the composite windows of the fifth story. Pilasters rising to the roof, with capitals and pediment, still further enriched the external appearance. The cornice was surmounted with an iron railing.

As originally constructed, the building contained 73 offices. On the fourth floor, planned for the use of the Merchants' Exchange, was the Board room, 70 feet long by 53 feet wide, 23 feet high, with a "ladies' gallery" at the east end. The secretary's rooms, committee rooms, etc., were *en suite* adjoining.

The contract for the entire building was let to Jacob Beier & Son. They handled the stone and brickwork themselves, and sublet the other portions. The edifice was ready for occupancy November 1, 1883. The entire cost of site and building was approximately $250,000.

The opening ceremonies were held on New Year's Day, 1884. The Exchange room was thronged, and as there were few seats, the greater part of the audience stood "shoulder to shoulder." Up in the balcony Poppenberg's band filled the air with harmony. On the platform, besides the speakers, were Pascal P. Pratt, Cyrus P. Lee, S. M. Clement, F. H. Root, and the Hon. E. G. Spaulding. The president of the Board of Trade, Jacob F. Schoellkopf, in a short address, reviewed the career of the organization, and named the men who had served as its president. He announced that the Buffalo Merchants' Exchange, which had been incorporated April 14, 1882, had leased the Exchange room and offices adjoining. "I now have pleasure, Mr. President," he added, turning to Mr. Scatcherd, "in giving you possession of them, hoping from the evidences presented

during the past few weeks and now before me that you represent an institution which will not only be an honor to Buffalo, but a source of incalculable benefit to our commercial and business interests in all their varied departments."

President Scatcherd, representing the Merchants' Exchange, accepted the lease in a short speech, in which he predicted a successful career for the Exchange if it received the hearty coöperation of the different business interests represented. "The full significance of the hour is found in the fact that through the medium of the Merchants' Exchange, the commerce and trade of the lakes and canal have struck hands with our mercantile and manufacturing interests, and the representatives of each are upon this floor side by side, united by a common tie for the purpose of promoting and protecting the varied industries and interests of Buffalo."

Interesting addresses followed; by E. L. Hedstrom, who sketched the growth of Buffalo's commerce; by Hon. E. C. Sprague, whose theme also was the progress of Buffalo, but in the broadest sense, with a thought for her advance in other things than the merely material; by Richard K. Noye, representing the manufacturing interests; by George P. Sawyer, who spoke for the lumber interests; and by George S. Hazard, who gave reminiscences of the Board of Trade and its accomplishments.

It was a pleasant and truly auspicious occasion. Congratulations were received, in letter and telegram, from friends elsewhere, from other commercial bodies and business interests. The assemblage seemed infused with a spirit of enterprise and coöperation which augured well for the Exchange and for the city of Buffalo.

The construction of the Lackawanna railroad through the section west of Main Street, in the spring and summer of 1883, destroyed all of the buildings associated with the life of the Board of Trade up to this time, wiped out most of the landmarks in the neighborhood, obliterated streets and utterly changed the character of that part of the city. There was a general regret, even among unsentimental people, at the passing of Central Wharf. No other place in

Buffalo stood for so much in the city's business history. The Board of Trade, and offices adjoining, had long been the rendezvous, the club-room, of the men of trade. As many a resident can recall, it was a picturesque row of buildings with balconies and stairways, overlooking not only the river, but with good lookout beyond the harbor and up the lake. On the upper balcony crowds of merchants and vessel-owners were wont to gather, to note the incoming of vessels, or the struggles of some craft in the ice floe of early spring. The old wharf had so long been the business home of many of these men that its destruction seemed to them little less than desecration. Some of them had begun work there as boys. As they got on in years, they had advanced from clerks to partners, had established firms of their own, had bought and sold, bargained and shipped, elevated and built. Year after year they had seen the commerce of the port grow. Their own efforts had made it grow; they had created the greatness of Buffalo, and were a part of it. And old Central Wharf for twenty years, and its immediate neighborhood for twice twenty years, had been the center of it all.

Some of these men remembered the earliest buildings on the wharf, and loved to tell stories of them. They would point out where Winthrop Fox built his store in 1814—the site long covered by Hand's tug-office. John Scott's old warehouse, built in 1816, stood close by, some fifty feet from the foot of Main Street. Scott was remembered as the first forwarder of Buffalo; George Holt was his clerk.

There were few if any other structures on what became Central Wharf until after the canal was opened. About 1825 Joy & Webster built a wooden warehouse at the corner of Commercial Slip. Then came that of S. Thompson & Co., on the site of the Union Steamboat Company's office, extending to the river. Smith & Macy built about where the Board of Trade headquarters were afterwards established; and rapidly the whole water-front was built up. As each office was established, there was generally a warehouse in connection, and a separate dock fronting immediately on the waterway. Insurance men, liquor and cigar

dealers and other tradesmen, located as they could find space among the dealers in grain or ships' stores. About the time the Board of Trade was organized the first continuous wharf was built at this point. The sail-lofts and warehouses loomed above little one-story offices. These in time were replaced by three and four-story brick structures. The balcony or second-story verandah was an early feature of the row, and it added greatly not only to the picturesqueness of the wharf, but it promoted the social intercourse and business freedom of the colony.

It was a place too of many associations. Many distinguished men, only a few of whom are named in this sketch, were visitors in the old rooms. A former President of the United States, Millard Fillmore, had helped to dedicate them.[1] At a later period another Buffalo President of the United States, Grover Cleveland, was one of the few honorary members of the Exchange. The most impressive scene ever witnessed in the rooms on Central Wharf was on September 26, 1881, when a memorial service was held on the death of President Garfield, shared in by prominent clergy and the Westminster Church quartette, and attended by a throng of members. Thereafter for thirty days the Board of Trade rooms were kept heavily draped in mourning.

The revised by-laws of the Merchants' Exchange, adopted January 29, 1884, specified, among the usual provisions, that membership certificates were transferable on the payment of a fee of three dollars; that clerks in the employ of a member could represent said member on the floor of the Exchange on payment of fifteen dollars per year for each clerk. The annual election of trustees was fixed on the second Wednesday of January, "but at this election the members of the Exchange may have the privilege of expressing their choice who of this number shall be president, vice-president and treasurer." The standing committees include those on Finance, and on Floor, to be chosen from the Board of Trustees; on Rooms and Fixtures, to consist of

1. For Mr. Fillmore's remarks at the opening of the Board of Trade rooms on Central Wharf, June 26, 1862, see 11 Pubs. Buf. Hist. Soc., 67, 68.

three members of the Board and two members of the Exchange, not on the Board; and on Reference, Transportation, Real Estate and General Information, from members of the Exchange not on the Board. The Arbitration committee, to consist of three members of the Exchange not members of the Board, was to be elected by the Board, instead of appointed by the president, and no one serving on it could also be a member of the Reference committee. The duties of the committees are carefully specified, especially as relates to reëlection of expelled members, complaints against agents, the settlement of trades or with members who fail to meet their contracts.

By the end of 1884, 530 members were enrolled. The admission fee was increased from $100 to $250, the money received being mainly invested in Board of Trade stock. The Exchange room was a busy place. Commercial reports of markets from all points were bulletined as soon as received. The reading-room was kept well stocked with newspapers and trade journals. The services of a reliable and capable chief inspector of grain, Conway W. Ball, had been secured. The various committees were active and some of them made valuable reports of work in their province. The Lumber Committee, reporting for the first time to the Exchange, submitted a statistical review of the year 1884, in which, it is not without interest to note, "at least 300,000,000 feet of lumber were received by our dealers, on their own account." The Transportation Committee issued circulars during the year, and a report at its close, covering the general subjects of freight discrimination, adequate harbors, etc., with numerous recommendations for local work. It advocated a nine-foot draught for the Erie Canal.

These and other data relative to its work which might be cited, show that notwithstanding the season of 1884 was an unprofitable one for lake and canal interests, the Merchants' Exchange, finding constantly a broader field of activity, was at this period in a flourishing condition.

Among matters of a National character which received the attention of the Exchange at this period were the Silver Coinage, the Bankruptcy Bill and Taxation.

When the Merchants' Exchange was organized, it was anticipated that the Transportation Committee would be one of the most important, if not the most important, of all the committees. Nothing was done by it, however, until January, 1885, when it made the report just cited. In that year an effort was made to bring the transportation interests more prominently forward in Exchange affairs. An enlarged committee of thirteen members, was named by President Hedstrom, each member representing a different trade or business. The principal task of the committee was to cure, as far as possible, the evil of inequitable and unjust discrimination in freight rates, and to see that the railroads, in making up their tariffs, gave Buffalo *pro rata* rates.

When the Exchange got fairly to work on its new basis, its committees included those on finance, rooms and fixtures, floor, reference, arbitration, transportation, real estate and general information, lumber, coal, oil, call board, flour and grain inspecting, and grain. In 1887 it added committees on groceries, produce, etc., and harbor improvement; and, from time to time, still others, to deal with new features of its ever-broadening work.

X. Miscellaneous Work—Some of the Workers.

By 1893 the question of enlarging the building was raised. In the spring of that year, a committee to whom the matter had been referred, reported against it. Three years later, however, it was found advisable to add another —the eighth—story. The seventh story was overhauled and improved, new elevators put in and minor improvements made. The value of the land and building was then estimated at $295,000. The par value of the stock was $185,000, and as the Merchants' Exchange owned more than one half of it, it controlled the management of the building.

The rules and regulations governing the inspection of grain have been modified from time to time. Revised rules were adopted March 24, 1884. The appointment of a chief grain inspector established an admirable system of inspection which increased the business and gave a recognized

standard for all cereals bought and sold, besides proving advantageous to interested parties.

The Floor Rules adopted by the Exchange April 10, 1884, fixed 'Change hours from 10 a. m. to 4 p. m.; High 'Change from 11.30 a. m. to 12.30 p. m.; forbade smoking in the Exchange room between 11 and 12, and decreed that "the throwing of dough, corn or other articles is strictly forbidden," and provided for what was deemed adequate punishment for offenders. Members who are "posted" for failure to meet contracts are forbidden the privilege of the floor.

On February 14, 1884, the Exchange adopted rules and regulations governing the Call Board; specifying the time and method of trading, the quantities of grain constituting purchases and sales under call, providing for a record of transactions, etc.

On March 24, 1884, a set of rules and regulations for the government of the grain trade was adopted by the Exchange. They fixed the hours for trading; specified that a boat-load of wheat shall consist of 7,800 bushels, of corn 8,300, oats 13,000; a car-load of grain shall consist of 30,000 pounds; and prescribed the procedure with securities or margins, payments, commissions, inspection, etc., with penalties for infraction of the rules. For the first violation of the Trading Rules a fine of $25 is imposed; for a second violation, a fine of $100; and for a third, suspension or expulsion, in the discretion of the trustees.

The miscellaneous work of the Board of Trade and Merchants' Exchange touches many matters, some of them far beyond the natural field of activities for a commercial organization. From time to time special efforts have been made to advertise Buffalo. This was notably so just prior to the Pan-American Exposition and again in 1904 when the Exchange entered into a contract with the *Forum* magazine for the publication of an illustrated article on Buffalo. Other work of a more or less elaborate scale has been done from time to time in this field; recently, to good effect, by the attractive paper styled *Doings*, issued by the Chamber of Commerce.

Proper record should be made of the work of the Exchange in connection with the Pan-American Exposition. As early as 1896, when the first proposal was made for holding an exposition on the Niagara Frontier, the Merchants' Exchange gave hearty support to it. It was then thought possible to arrange for the exposition in 1899, but by 1898 it was seen that the enterprise must be postponed and worked out on a wholly different basis. In December of '98 the Exchange passed resolutions endorsing a later date for the Exposition and adding the important stipulation that when it should be held it should be held if possible within the Buffalo city limits. The first idea had been to place it on an island near La Salle. Throughout all the months of organization for the active work of the Exposition year the Merchants' Exchange took a public-spirited and liberal attitude. It seemed to realize that one of its most important functions was to foster such a public enterprise as this. It established a bureau for the entertainment of guests and it suggested the idea of a Buffalo Day, ultimately fixed, also at its request, on October 19th. Its special committees of various sorts contributed their full share to such measure of success as crowned the work of the Exposition.

Through the Merchants' Exchange Buffalo has repeatedly been represented at expositions elsewhere. It sent a strong delegation to the World's Columbian Water Commerce Congress, held at Chicago during July and August, 1893, in connection with the Columbian Exposition. It entertained in Buffalo, October 15, 1889, delegates to the International American Congress. It was represented in 1896 at the opening of the Philadelphia Commercial Museums, and holds a membership certificate therein.

The Board of Trade and Merchants' Exchange have not failed to respond to calls for help in time of calamity. Generous subscription was made after the great Chicago fire of 1871. In October, 1873, several hundred dollars were raised for Memphis sufferers. In September, '86, the Exchange sent a generous donation to the Charleston earthquake sufferers; in '89 it contributed over $2,000 towards the relief of the Johnstown flood sufferers. Home philanthropies

have also been remembered. In 1893, instead of giving an elaborate lunch for members, it donated $250 to the Women's Educational and Industrial Union. From time to time it has contributed to the Fresh Air Mission and to other good causes. In 1896, 400 members of the Exchange marched in the Sound Money parade of October 29th, when 30,000 men of Buffalo took that way to show their political affiliation and financial views. In 1895, the Exchange was active in urging that Buffalo be designated as the place for holding sessions and the location of the Appellate Division of the Supreme Court, Fourth Judicial Department. It recommended the establishment here of a branch hydrographic office, and then and at other times made efforts which resulted in the improvement of the Signal Service work on the Great Lakes.

From time to time it has found it advisable to strengthen its hold on the community in social ways. Its reception and ball on the night of December 30, 1886, brought to the Exchange building a thousand or more representative Buffalo men and women, and it is still recalled as an unusually successful gathering. Its trade excursions, undertaken in 1900, in coöperation with the Credit Men's Association, have proved not only a source of pleasure, but a source of profit to Buffalo. Its banquet of December 22, 1902, marked the completion of the Buffalo breakwater. These are some of the events in its recent history which have given the Chamber of Commerce a firm hold on the social life of its city.

Various amendments have been made from time to time to both charter and by-laws; to the former, April 28, 1891; to the latter, November 17, 1891. Perhaps the most important of these new provisions was the Gratuity Fund, organized in September, 1887,[1] and included thereafter in the provisions of the by-laws. It provided a life insurance for members of the Exchange, settling aside a part of the annual dues for that purpose, and at death the reserve was increased by each member paying a small amount more than was required to meet a death claim. The fact that the obligation

1. The Act of June 8, 1887, amends the charter as to investment of funds, and creates the Gratuity Fund.

to pay the assessment was a binding one, rendered the security complete. The Exchange, by means of the trustees of the Gratuity Fund, took charge of this business, without any compensation, so there was comparatively little money to be expended except in the payment of death claims. The first trustees of the Gratuity Fund, 1887, were Henry C. French, Charles B. Armstrong, Harris Fosbinder, James R. Smith and Henry S. Sill.

The system was in operation for some years, but never gained the popularity which its projectors had expected. In 1889 it was proposed to do away with it. Legal advice at the time was against this, and it was continued, 61 new members being added. The fund in 1890 consisted of 100 shares, Board of Trade stock, of a par value of $2,500, and $753.87 in cash. In January, 1893, a letter was sent to the 215 members of the fund, seeking their views as to the expediency of continuing. Fifty were for it, 94 against it, 10 wrote to say they were indifferent, and 61 were too indifferent to write at all. In 1901 a bill was introduced in the Legislature giving the trustees authority to terminate the fund. Finally, February 12, 1903, the trustees of the fund held their last meeting; the last members having withdrawn, the 100 shares of Board of Trade stock were transferred to the Merchants' Exchange, and the trustees resigned.

A sketch like the present would be lamentably incomplete did it not recognize the individuality of the men who built up the institution; but when one undertakes to specify, it becomes impossible to give due distinction to the scores and hundreds of men whose business history is identified with the Chamber of Commerce. Buffalo has never lacked strong men, able men, in her business ranks. In the old days on Central Wharf, before modern methods of corporate control had minimized the opportunities of individual effort, business success was a personal matter. Competition was sharp, and the conditions called forth the best there was in a man. The conditions made strong men—men capable to cope with any emergency. Here were developed the essential qualities which built up successful firms, laid the

foundations of substantial fortunes, and strengthened commercial Buffalo.

The succession of presidents of the Board is an honor roll in the business history of Buffalo. From Russell H. Heywood down the office has been held by men conspicuous in the community for their business ability and public spirit. In all this line it can not be deemed invidious to make individual mention of but one who, five times president, gave to the Board of Trade a unique service. This was George S. Hazard. No other president has served so many terms, or at such a critical time. At the head of the body during the Civil War, it was in large measure due to Mr. Hazard that the 100th Regiment was "adopted" by the Board, strengthened and helped during the war. Surviving most of his early business associates, Mr. Hazard long enjoyed the affection and veneration of a younger generation. He reached his 94th year,[1] active well-nigh to the end, a beautiful figure in the life of Buffalo, as he was an important figure in its history.

Among all those who have served the organization the history of which we trace, and who helped make it what it now is, peculiar distinction belongs to William Thurstone. When he died at his home in Buffalo, March 26, 1898, he had been secretary of the Board of Trade for thirty-five years, and of the Merchants' Exchange for sixteen years. Born in London, Eng., February 21, 1826, he settled in Buffalo in 1855, and in 1863 was made secretary of the Board of Trade, at one dollar per day. His fidelity and ability won repeated advancement. After the organization of the Merchants' Exchange, of which he was made secretary, in 1882, he continued to act as honorary secretary of the Board of Trade, until his death.

He was distinguished not merely by the ability to do routine work surpassingly well, but by his ideas, which were broad and progressive. As early as 1871 Mr. Thurstone suggested, "whether the advantages of our present Board of Trade might not be extended to the other varied interests of our city through enlarging its sphere of usefulness by

1. Mr. Hazard died Aug. 7, 1903.

inducing our manufacturers and merchants to become identified with it by becoming members, and the establishment of committees or bureaus in the several departments of their trade to protect their interests and increase their business." A third of a century later we find the institution expanding and seeking to accomplish greater results, along the lines suggested by Mr. Thurstone in 1871.

He was one of the commissioners appointed by the Canal Board, July 10, 1877, to investigate and report on the subject of canal tolls. He served with David A. Wells and L. J. N. Stark, and in February, 1878, made an admirable report, which has permanent value as an historical document.

His life-work was given to the Board and Exchange, and from first to last he served it, and through it the city of Buffalo, with exceptional devotion, zeal and discretion. His post was never a very remunerative one, yet we find him, in a period of reverses for the Board, accepting a reduction of pay, and cheerfully carrying forward the work as usual. He soon won a reputation as a statistician; not merely serving in that capacity the Board of Trade and the press of Buffalo, but the United States Bureau of Statistics, which was under great obligations to him for reports on the commerce of the lakes and allied subjects. One phase of his work is recorded in the long series of minute-books, and in the annual publications of the Board. Aside from his devotion to this work, he filled worthily his place in the community, in all the relations of life. He touched life in many ways, with liberal ideas and many likings, and he held a secure place in the heart and remembrance of Buffalo. When his work was at an end, the press of Buffalo with unwonted fondness, dwelt upon his many high qualities, and pointed especially to the fact that his was a successful career because he had devoted himself to doing, and doing it better than most men could, a task worthy to be done. He could say with Robert Louis Stevenson: "I have known what pleasure is—I have known what it is to do a thing well." When word of his death reached his associates in the Exchange, a special meeting was held, for appropriate

action, and on the day of his burial (March 29th) the Exchange was closed in respect to his memory.

Mr. Thurstone's first predecessor, as secretary of the old Board of Trade, was Giles K. Coats, elected in March, 1845. Data are lacking as to Mr. Coats' term of service. As already noted, John J. Henderson was secretary, 1855-57, perhaps longer. In 1860, Horace Wilcox filled the office until June 30, when he resigned and Alfred D. Daw succeeded him. Mr. Thurstone's successor, chosen in April, 1898, was Charles H. Keep. Mr. Keep, who had been also secretary of the Lake Carriers' Association from 1891, gave the Exchange most efficient service until November, 1901, when he resigned, and was succeeded by F. Howard Mason, who was secretary of the Exchange, and of the Chamber of Commerce until the spring of 1908, when he was succeeded by Walter J. Shepard, who successfully filled the office until May, 1909, when he was appointed one of the Buffalo city assessors. On Aug. 1, 1909, Mr. Fenton M. Parke became secretary of the Chamber of Commerce.

The dean of the body, so far as length of service goes, is the Lake Weighmaster, Junius S. Smith, whose official connection with it dates from 1870. The first incumbent of the post was Hiram M. Smith, in 1868. The next year there was no appointment, nor was there any at the opening of navigation in 1870. In May of that year Cyrus Clarke of Buffalo, being in Chicago, telegraphed home that the vessel interests there were calling for the appointment of a weighmaster at Buffalo, and on the 24th of May the Board appointed Junius S. Smith and Capt. Martin Busher. Capt. Busher died in September of that year, and Mr. Smith performed the duties of the office. Mr. Smith was appointed annually by the Board of Trade until 1884, and then and until 1903 by the Merchants' Exchange. In the last-named year, on account of car-grain work, the chief inspector was appointed weighmaster, Mr. Smith being made lake weighmaster. This continued under the Chamber of Commerce until 1906, when the Corn Exchange of Buffalo took up the management of the grain business, Mr. Smith's appointment as lake weighmaster now being made by that body. The

reports of the weighmaster, during the past thirty-seven years, deal with many matters of importance, which cannot be entered into here. The system developed and standardized by him, has been, obviously, a constant check on the work of all the elevators of the lakes. The quantity of grain weighed by him has varied from 19,060,293 bushels in 1876, the lowest year in his term of service, to 125,953,595 bushels in 1898, the record year to date. The amount for 1907 was 92,051,758 bushels. More striking, however, than these figures—which of course do not include rail shipments—is the reduction in the average shortage. In 1872, when the system was adopted, the average shortage per 1,000 bushels was 1.02 bushels. In 1907 it was 0.30, and in some recent years has been even lower, being only 0.154 in 1905, or less than one-sixth of what it was when the system was established. Under the Buffalo Board of Trade and its succeeding organizations, grain weighing has been reduced to a science.

XI. Buffalo and the Canal.

In April, 1863, the Board of Trade of Buffalo, in association with gentlemen representing the Corn Exchange of New York City, submitted to the Joint Committee on Canals of the New York Legislature, a memorial showing that in the past season the tonnage capacity of the locks on the Erie Canal had been reached at 2,900,000; that there was no probability that the movement of tonnage would be increased by increasing the number of boats; with other facts and arguments to show the inadequacy of the locks. The channel of the canal was 70 by 7 feet, whereas the locks were but 97 feet by 18; and the shippers and boatmen of Buffalo improved the opportunity to show as forcibly as possible, with a great array of convincing statistics, the urgent need of lock-enlargement.

The canal policy of the Board was forcibly stated in a report, drawn up by a committee of fifteen and adopted by the full Board, December 18, 1874. It recommended "the completion at the earliest practicable time, of the work now

in progress . . . on the Erie and Oswego canals, according to the original policy of the amendment to the Constitution of 1854 . . . so as to make the canal full 70 feet wide and 7 feet deep." The Board also advocated the abandonment of certain lateral canals, the abolition of all weigh-locks, of many collectors' offices, the reduction of tolls on eastward-bound produce and grain to one-half of a mill per mile per 1000 pounds, and the complete abolition of tolls on westward-bound freight.

The committee which drafted the report embodying the above recommendations, consisted of Cyrus Clarke, Alfred P. Wright, Robert Hadfield, John H. Vought, Absolom Nelson, D. P. Dobbins, James D. Sawyer, S. S. Guthrie, Niles Case, P. S. Marsh, Alonzo Richmond, Charles J. Mann, Henry A. Richmond, Nathan C. Simons and Jacob Shaver, Jr. This committee sent to the Canal Board of the State of New York, February 20, 1875, a long and strongly-argued address,[1] devoted chiefly to the alarming state of the grain trade in the State and the urgent need of a canal policy along the lines indicated above. There is no question that this address, made up as it was of facts and unanswerable arguments, had great weight with the Canal Board, whose special committee, in a report of March 10, 1875, recommended certain reductions in tolls for that season.

Action substantially of the same purport as the above, was taken by the Board in different years. Prior to the above, at a meeting on 'Change, January 28, 1874, resolutions were adopted, reiterating certain features of resolutions adopted November 22, 1872, in which the canal policy of the Board was clearly defined. In addition to the enlargement and other features mentioned above, the Legislature of 1874 was asked to pass the Funding Bill, "to put the funds in proper shape to improve the canal and make it practically a free canal or as nearly so as possible."

The work of many years may be summed up by saying that the reduction of fifty per cent. in canal tolls which had

1. This address, and the report of Dec. 18, 1874, are printed in full in Secretary Thurstone's annual report on the trade and commerce of Buffalo for 1874.

been secured to shippers by 1870 was largely due to the unceasing activity of the Buffalo Board of Trade. Twelve years later, the total abolition of the tolls was also in large measure attributable to the same source. The Board never failed to be represented at the various canal conventions or at Albany when legislation affecting the canal was pending. In August, 1886, Buffalo sent its usual strong delegation to the canal convention at Syracuse and George Clinton was made permanent chairman of the Union for the Improvement of the Canals of the State of New York. This organization accomplished much.[1] In 1889 the Merchants' Exchange, represented at Albany, made vigorous opposition to the so-called Syracuse waterworks bill, which contemplated diverting to city uses the water of Skaneateles lake, which the friends of the canal claimed was needed as a feeder of the Jordan level. The ultimate defeat of this measure was attributed at the time to the activity of the Merchants' Exchange of Buffalo. In 1891 this organization kept, at considerable expense, a special agent on the ground at Montezuma, where a bad break existed, looking after the interests of forwarders. The next year we find the Mer-

---

1. The following letter from Senator Conkling bears witness not only to the activity of the Merchants' Exchange, but to the interest of the distinguished writer in canal matters:

2 Wall Street, NEW YORK, February 29th, 1888.

To WM. THURSTON, *Esq., Secretary Merchants' Exchange, Buffalo.*

MY DEAR SIR: I beg through you to express thanks to the Committee of the Merchants' Exchange and Business Men's Association for the honor of being invited to address the meeting to be held on Saturday. Although it is not in my power to be in Buffalo, my presence is not needed, I trust, to attest my interest in the Erie Canal. I believe in the maintenance, enlargement and freedom of this great artery of commerce for reasons too many to be stated in a brief letter. Not for Buffalo alone, nor for Buffalo and New York together, deep as is the interest of both, but for the State of New York, the whole State and all its sections, it is largely and durably important not only to take care of the canal, but to keep it up to the times in the fulness of its usefulness. Not only as a feeder, but as a regulator and safeguard the canal is so needful that the day will be ill-starred when the people or Legislature shall turn deaf ears or blind eyes to whatever honest demands it makes on the State or its revenues.

Had I vote or voice in the matter, that vote or voice would always be for locks long enough and prism capacious enough for the boats and the traffic willing to float.

Your obedient servant,

ROSCOE CONKLING.

chants' Exchange appointing a committee and raising money to help the Canal Improvement convention held in Buffalo. At this time $2591 was collected for the work of the Union. Timely action and enthusiasm practically saved a cause which was on the verge of being abandoned in despair and discouragement.

An important year in canal history was 1894, when the Constitutional Convention revised the fundamental law of the State. The Buffalo Merchants' Exchange, with other commercial bodies, suggested to the convention important canal amendments; and the Harbor and Canal Improvement Committee drafted an amendment leaving the scope of the improvement of the canal and the amount to be appropriated to the discretion of the Legislature. Especially active at this time in behalf of canal interests were Messrs. George Clinton, R. R. Hefford and Capt. M. M. Drake.

Subsequent efforts were made both in respect to safeguarding the canal by constitutional provision and also in the Legislature, where, in March, a resolution of the Merchants' Exchange was presented urging the enactment of the bill appropriating $12,000,000 for canal improvement.

The State election of that year was made by the Merchants' Exchange the occasion of a most vigorous canal campaign. Every effort was put forth to secure a favorable vote on the canal amendments. Committees were appointed to work at the polls; thousands of circulars were distributed; 2000 silk badges, testifying that the wearer was a friend of the canal, were sent out. The effort was justified. All of the canal amendments were carried. These amendments (embodied in Article 7, Sections 8, 9 and 10), in effect provide that the Legislature of the State shall not sell or lease the State canals, that no tolls shall be imposed on the traffic, that repairs and superintendence shall be paid for out of the annual tax and that further improvement should rest in the hands of the Legislature.

On March 9, 1895, Governor Morton signed the $9,000,000 canal bill. In September of that year the Merchants' Exchange delegation to the International Deep Waterways Association at Cleveland confined their efforts to

getting recognition of the desirability of Erie canal improvement. For the next half dozen years the Exchange continued constant in its attention to canal interests.

In 1899, Governor Roosevelt called for a definite formulation of the State canal policy and appointed a special committee, of which Gen. Francis V. Greene was chairman, to investigate and report. The work of that committee and its elaborate report[1] are familiar to all students of the subject. It belongs to the present paper, however, to note that in connection with the inquiries made by that committee—one meeting being held on the floor of the Buffalo Exchange for the taking of testimony—the Harbor and Canal Committee of the Buffalo Merchants' Exchange, May 18, 1899, adopted resolutions in favor of canal improvement "by enlarging the locks to the largest practicable dimensions," and by providing a depth in the canal of nine feet, and an available draught to vessels of eight feet.

A meeting of canal men, held at the Buffalo Merchants' Exchange on this same 18th of May, adopted resolutions in favor of "immediate enlargement of the locks to a length of 260 feet, width of 26 feet and depth of 11 feet," and recommended a deepening of the canal to 9 feet with 8 feet of available draught. "The Canal Enlargement Association," which included many members of the Merchants' Exchange, endorsed these views. Prominent members of the Exchange, notably the Hon. George Clinton and R. R. Hefford, wrote to the committee, stating their views at length.

Other canal meetings in Buffalo followed. It was a crucial time in the history of the canal system in the State. The Merchants' Exchange rose again to the emergency. It raised a fund of some $10,000 which included several large subscriptions from outside sources to carry on an educational campaign, and it is but fair to record that it did more to rouse the people of the State of New York to the importance of the canal question than any other organization in the State.

1. "Minutes and correspondence of the Committee on Canals of New York State," New York, 1900. 8vo. pp. 287.

As time went on, the canal proposition changed. By 1902 we find the State committed to the thousand-ton barge canal. In behalf of this the Exchange was very active and the measure itself was, no doubt, in large degree due to the untiring work and earnest representations of the Buffalo body.

From the day of its organization to the present hour, the Buffalo Board of Trade and the organizations which under other names in later years have continued its history, has been first, last and all the time the staunch supporter of the canal system of the State.

As our narrative shows, it has championed many good causes and accomplished many things, but its greatest work, by no means yet ended, has been in connection with its promotion of interests pertaining to this inland waterway.

XII. The Grade Crossings Campaign.

In all the long campaign which has helped to rid Buffalo of dangerous railroad crossings at grade, the Merchants' Exchange was active. It was the people themselves who took the initiative. What with the delay and loss of business due to obstruction of crossings, and the appalling slaughter of men, women and children, it is small wonder that the community as a whole cried out that an end be put to the outrageous situation. The press, the Common Council and the Merchants' Exchange, all had a part in bringing about a practical method of relief. Long before the Grade Crossings Commission of Buffalo was created, the evil of the situation was considered, with plans for its abatement: by Peter Emslie in 1856, when the evil was in its infancy; by Joseph Churchyard in 1874, when it had grown threatening; and again, in later years, by the Exchange. Buffalo will always be thankful that Robert B. Adam became head of that commission. His ability, his perseverance and sagacity, were exerted in this matter and

in behalf of Buffalo unceasingly throughout the last fourteen years of his life. But it was the Merchants' Exchange, of which he was president in 1888, that drew him into the work. He himself made record to that effect:

"One day in September, 1887 — the 10th, I think — Secretary Thurstone asked me if I would be willing to go to Albany as one of a committee from the Merchants' Exchange, to attend a hearing before the State Railroad Commissioners upon a proposed plan for abolishing a number of the most troublesome grade crossings in Buffalo. At that time I knew little, and cared less, about the grade crossings question; I had no desire to travel to Albany; and I declined the invitation."[1]

That Mr. Adam changed his mind and went, and that he subsequently became chairman of the Grade Crossings Commission, is not only familiar history, but fortunate for Buffalo. The public should be equally familiar with some features of the part in that great work which was borne by the Buffalo Merchants' Exchange.

Not to make a long story of it, we may begin with that special meeting of the Merchants' Exchange held on October 27, 1887, "to receive the report of the special committee appointed to meet the Board of Railroad Commissioners of the State of New York, on the matter of railroad crossings at grade in the city of Buffalo." This committee, consisting of Hon. Philip Becker, R. B. Adam, Jacob Dold, George Sandrock and E. B. Wilbur, along with delegations from the Common Council and various Buffalo organizations, had attended a hearing before the State Railroad Commission, in Albany, and made their plea in behalf of their city.

The meeting on 'Change of October 27th was a notable one. It was not only one of the largest in the history of the Exchange, but one of the most earnest and fruitful. Secretary Thurstone read the report of the committee, detailing their part in the Albany hearing of September 13th; of subsequent meetings, at the Merchants' Exchange on September 28th, when resolutions were adopted favoring (in

1. "History of the Abolition of Railroad Grade Crossings in the City of Buffalo," by Robert B. Adam, in Publications, Buffalo Historical Society, vol. viii (1905), pp. 151, 152.

general) the elevation of the tracks and depression of the streets; and of meetings held October 14th and 22d, jointly with committees from other bodies.

It is unnecessary here to trace, meeting by meeting, the successive steps taken by this Joint Committee. Through all the negotiations with the railroads, the securing of legislation, the overcoming of obstacles of all sorts, the Exchange bore its part. In February, 1888, it endorsed and gave approval to the bill providing for the appointment of a grade-crossings commission "with power to adopt plans and enforce them." Two years later (January 21, 1890), we find the Merchants' Exchange endorsing the amended bill and sending a strong delegation to Albany in its behalf. As time passed, the need of enlarging the powers of the commission was seen. A public hearing, held at the Merchants' Exchange, February 6, 1892, voiced public sentiment in a set of vigorous resolutions; and on February 9th another delegation at Albany spoke for the Merchants' Exchange in demanding that the Grade Crossings Commission be given power to compel the railroads to act in the matter This led to the passage of the Act which was signed by the Governor and became law, April 20, 1892. The Exchange helped to bring about subsequent legislation tending in general to strengthen the hands of the Grade Crossings Commission. In 1897, Mr. R. B. Adam, as chairman of the Exchange committee on Railroad Street Crossings at Grade, made an elaborate report, covering the work of the past five years. It is an admirable report, and records one of the most notable contests in the history of Buffalo. Actual work with pick and shovel, for the abolition of the obnoxious crossings, was begun May 22, 1895; and after Mr. Adam made his report to the Exchange, grade-crossing matters ceased to be prominently before that body. It was "a thing done." It should be added, however, as the records show, that from first to last, many members of the Exchange, in one capacity and another, often with much labor and personal sacrifice, have devoted themselves to this work.

XIII. Relations with other Organizations.

Buffalo interests were represented through its Board of Trade at the National Ship-Canal Convention held in Chicago, June 2 and 3, 1863; A. M. Clapp, a prominent journalist of Buffalo, was one of its secretaries, and George S. Hazard was a member of the committee on nominations. Among the works which the convention thought the Federal Government should undertake, were, the construction of a ship canal around Niagara Falls, and the enlargement of the locks on the Erie and Oswego canals, so that iron-clad gunboats 25 feet wide and 200 feet long, drawing not less than 6 feet 6 inches of water, could reach Buffalo and the lakes from the seaboard by an all-American route. This desire was a natural outcome of the issues and alarms raised by the Civil War. The convention, just before adjournment, adopted a resolution inviting the Boards of Trade of cities interested, to coöperate towards the attainment of the objects which the convention had set forth. Statistics collected by the Buffalo Board of Trade, especially of breadstuffs shipped eastward for exportation, are incorporated in the report of this convention.

Many of the New York delegates accepted an invitation to visit St. Louis; among those who did so were a number from the Buffalo Board of Trade including President Hazard, John Allen, Jr., and Henry W. Rogers. They were formally received in the court house, and welcomed by Governor Gamble of Missouri and Mayor Falley of St. Louis. Speaking for his associates and for the Buffalo Board of Trade, Mr. Hazard said:

"I cannot let this occasion pass without expressing my sincere thanks for the kindness and courtesy which have been extended to this delegation by the citizens of St. Louis; and permit me through you, Mr. Governor, and through you, Mr. Mayor, in the name of the Buffalo Board of Trade, to extend the hand fraternal and commercial to the citizens of St. Louis. We desire," he continued, "to cultivate and establish reciprocal commercial relations which shall remain and increase, and cement the East with the West in one great fraternal union of interest forever."

Mr. Hazard outlined the projects which had been under consideration at Chicago, and astonished his hearers by the statistics of grain movement at Buffalo—12,000,000 bushels in 1850, nearly 73,000,000 bushels in 1862—and he concluded with a touch of pleasantry which the assemblage did not fail to appreciate:

"Mr. Chairman, Buffalo, as the half-way house between the Mississippi and Atlantic, holds out her hand to you. We want your flour, your corn, your wheat and provisions—and we want your hemp, *unless you think you can make better use of it at home;* and I trust the time is not far distant, when your far-famed iron mountain, now reposing like a coy maiden to be wooed, on your plains must come to our embrace. We shall accept your polite invitation to visit this great phenomenon, but we shall respectfully ask that our morning call be returned in the usual liberal manner peculiar to this country, by heavy metallic instalments."

On one subject which came up time and again, championed by many boards of trade and individuals, both in and out of Congress, the Buffalo Board of Trade was uniformly and consistently obdurate. That was the Niagara Ship Canal. Ship canals around the falls had been proposed in very early days; and advocated, after surveys and elaborate reports, from 1835, at intervals through nearly four decades. In December, 1871, a Niagara Ship Canal convention was held at Detroit. The Buffalo Board of Trade did not send delegates, but prepared instead an able argument against the proposed construction. This argument, in printed form, was laid before the convention. The Buffalo Board, while expressing a deep interest in all feasible projects for cheapening transportation, pronounced the Niagara Ship Canal unnecessary and useless in the attainment of that object. It protested against any Federal appropriation therefor, holding that the national finances did not warrant such an outlay, and—an even stronger argument—that if built, the canal would benefit foreign commerce at the expense of our own. It claimed that the true solution of the question which the Detroit convention had under discussion, was the improvement of the Erie Canal, and the cheapening of transportation from the West by that route.

The outcome of the convention, in view of the wide attention which it attracted, and the heat which marked its deliberations, suggests the "ridiculous mouse" of old Æsop. Resolutions were adopted asking "Representatives in Congress to do all in their power to procure an appropriation" to build the canal. Nothing followed; and although the Niagara Ship Canal scheme is almost perennial in its cheerful reappearance, it is apparently as far from realization as it was in 1871, 1863 or 1835.

It is unnecessary to dwell upon the share which the Buffalo Board of Trade has had, throughout its long life, in gatherings of a national or international character, except in cases where its advocacy of a special policy was productive of a marked effect. It has been represented, year after year, at a variety of conventions and councils, sometimes by a single earnest member, often by a formally-named committee, now and then—especially at Albany—by a train-load of members and their business associates, armed with arguments and statistics for the accomplishment of some needed reform. Chief of these interests for which it has thus labored has been the canal system of the State. Buffalo harbor interests and necessities, harbors and channels on the lakes, railway transportation problems, have all in turn and through many years, received the attention of the Board through its delegations. Sometimes the battles have been sharp, very often they have been long; and in a great majority of the causes which it has championed, the Buffalo Board of Trade has won. It has always had good fighters in its ranks; and its influence is stamped not only on the laws of New York State, but on those of the General Government relating to the highway of the Great Lakes and various international aspects of commerce.

At an "International Commercial Convention" held at Baltimore in September, 1871, George S. Hazard, who represented the Buffalo Board of Trade, was made chairman of the New York delegation. There were twenty-seven large topics before the convention for discussion; but Mr. Hazard not only introduced, but carried through to a unanimous adoption, a resolution which stated that, as the tonnage of

the Erie Canal, in connection with the commerce of the great lakes, was strictly national in its character, "it is eminently proper that the General Government should take such measures, in connection with the State of New York, for such enlargement and increase of tonnage capacity as shall tend to cheapen the cost of transportation between the western and eastern states, thereby adding to the material wealth of the country." It is interesting to note that not only the Buffalo Board of Trade, but many other commercial and industrial organizations, representing all parts of the country, thus went on record as in favor of Federal aid for the New York canal system.

In the next year (January 17-20, 1872) we find Mr. Hazard in attendance at the annual meeting of the Dominion Board of Trade at Ottawa, sharing in a discussion on freer intercourse and the removal of certain constraints to business between Canada and the United States.

In 1867 the Board had taken membership in the National Board of Trade. The annual cost of this membership was, usually, about $150, was regarded as a burden, and it was a matter of much discussion whether the Buffalo organization received its money's worth. In 1869, when the annual dues of the National organization were $285, the Buffalo Board invited the National Board to hold its meeting for 1870 in Buffalo. Considerable enthusiasm was shown by the members and $2460 were collected to meet the expenses of the National Convention and entertainment of visitors.

The Buffalo meeting of the National Board of Trade in December, 1870, brought to the local organization a marked stimulus. The National Board at this time had a membership of about forty commercial organizations, with a total enrollment of some 17,000 merchants and shippers. The Buffalo Board of Trade appointed committees and made adequate preparation for reception and entertainment. President Charles G. Curtiss was especially active, as were the executive committee, made up of P. S. Marsh, James D. Sawyer, F. W. Fiske, James S. Lyon and John B. Manning. Henry A. Richmond, also, as chairman of the reception

committee, was an active and worthy representative of his city.

The meetings of the National Board, December 7th to 10th, were held in the council chamber of the City Hall, and were attended not only by a large representation from the Buffalo Board of Trade, but by interested citizens generally. President Curtiss, in behalf of Buffalo and its Board of Trade, welcomed the visitors in a pleasant address.

Among the subjects which received the especial attention of the delegates, were: Restrictions on internal trade, direct importation to interior cities, inland transportation, the practice of railroads in issuing bills of lading for grain, grain inspection, etc. In several of these discussions the Buffalo members bore an active part. Other subjects which were reported on at length by the executive council, or discussed in convention, were civil service reform, the postal service, improvement of waterways, Pacific railroads, and the need of the establishment of a Department of Commerce by the General Government.

Numerous social attentions and entertainments marked the occasion, culminating in a banquet at the Tifft House, tendered to the visiting delegates by the Buffalo Board of Trade. In the long list of toasts, that of "The Buffalo Board of Trade and City of Buffalo" was happily responded to by George B. Hibbard.

So far as the local Board was concerned, the most important feature of the meeting was No. XX. on the official programme, proposed by the Buffalo Board of Trade under the following head: "The importance of inland transportation by water, and the maintaining and improving thereof, by State and National authority, as a commercial necessity in controlling and cheapening the cost of transportation of the great products of the country."

George S. Hazard presented this subject to the convention in a long and able speech in which he dwelt upon the national character of the Erie Canal, and advocated Federal aid for its enlargement and maintenance. Resolutions embodying this view brought on a lively debate, but were

finally referred to the Executive Council for report a year later.

Buffalo continued its membership in the national organization until 1873, when a proposition to withdraw was considered and the Board voted to sever its connection with the National Board; but that the local members were by no means of one mind in the matter, is shown by the numerous reversals of decision, and the vote to withdraw was shortly after rescinded and membership continued. In June, 1875, the Board did withdraw from the national organization, alleging that its membership was not productive of any good to Buffalo and that the annual meeting, usually held in June, came at a time when the Buffalo merchants and shippers were too busy to attend. This, however, was not the end of it. In 1878, when the National Board was to hold a notable meeting in Washington, the Buffalo organization decided to be represented and Captain E. P. Dorr, J. B. Manning and William Thurstone attended as the Buffalo representatives.

In 1888 the Exchange sent delegates to the meeting of the National Board, who made on their return a very full report on many subjects of National import. In this year the Merchants' Exchange became a constituent member of the National body, which relation has since continued. It is entitled to send four delegates annually, the yearly fee being $20 each.

Another organization whose work for a time received the attention and aid of the Buffalo Board of Trade was the American Cheap Transportation Association. In May, 1873, delegates from commercial bodies in several states met in New York and perfected an organization which convened in Washington on January 14, 1874. The delegates from the Buffalo Board of Trade were W. H. Abell, P. S. Marsh, W. H. H. Newman, E. P. Dorr, John H. Vought and John B. Griffin. The gathering apparently did little beyond giving forcible expression to the views of its delegates. They condemned the creation of railway corporations without capital, the "watering" of stock, and the "inside rings" of directors who acted in opposition to the inter-

ests of stockholders. They recommended a National Bureau of Commerce and Transportation; and proposed that each State should create a board of railroad commissioners, having power to make and regulate freight rates on all lines doing business in the State. They condemned land grants and subsidies in every form, but recommended that the Government should construct roads and canals by letting the work, so far as concerns railroads, to the lowest bidder, and that when completed, all comers should be allowed to run cars on them, subject to tolls. In its resolutions on water routes, the association favored the enlargement, at Federal expense, of the Erie Canal, and the improvement, also by the General Government, of the harbors and channels of the Great Lakes. It must not be inferred that the Buffalo Board of Trade, or even its representation at the Washington convention, endorsed all the measures put forth with the approval of the Cheap Transportation Association. Where those measures coincided with the policy of the Buffalo Board, especially on canal and lake matters, they were naturally given hearty support by the Buffalo men. The Board was represented at the second annual meeting of this association, at Richmond, Va., in December, 1874.

Later (1892-3) we find the Exchange sharing in the work of the National Transportation Association; the Lake Carriers' Association; the Deep Waterways Convention—where the Buffalo men always opposed a deep waterway to the sea, but stoutly advocated deeper channels through the lakes—and (to mention but one more) the State Board of Trade, which the Merchants' Exchange helped to organize in 1891 and of which John N. Scatcherd (then president of the Exchange) was made first president. The special purpose of the State Board was "to keep track of and obtain legislation of benefit to the business interests of the State."

The Chamber of Commerce was prominent in the Washington conference, December 1907, which resulted in the formation of the National Council of Commerce. In the same year its representatives attended the Lake Mohonk Conference, the Peace and Arbitration Conference in New York, and the Foreign Commerce Convention at Washing-

ton. It is recognized as an active force not only in municipal and State affairs, but in national and international matters as well.

From about the time of the organization of the Merchants' Exchange, the merchants of Buffalo began to take a greater interest, or at least to show greater activity, than they had done in legislative matters of large import. It soon became a habit of the Exchange to refer to committees national bills affecting in any way the business interests of Buffalo. Usually these committees reported strong resolutions which were sent to Washington; often the resolutions were followed by delegations, so that in one way and another this organization increasingly made itself a force and exerted its influence at Washington in behalf of measures deemed beneficial to this community and against measures deemed harmful. It is unnecessary even were it practicable to enumerate here all of these measures which have engaged the attention of the Merchants' Exchange in the past twenty years. Some of the more important of them may be referred to. In 1886 it endorsed the bill introduced by Congressman Weber for the permanent improvement of the Erie and Oswego canals and to secure the freedom of the same to the commerce of the United States. In 1888 it favored the proposed appropriation of a million dollars for the canals—the measure known as the Cantor bill—and for which $650,000 were finally voted. In the same year, it continued its policy, already noticed in this sketch, of opposition to the proposed ship canal around Niagara. The next year, we find it advocating at Albany the establishment of the State naval militia, the bill for which Governor Hill signed in June of that year. It was active in behalf of various amendments to the Inter-State Commerce bill. It urged the passage of a national bankruptcy act. In 1890 it vigorously opposed the Butterworth bill, taxing dealers in options and futures. In 1891, at Albany, it helped defeat the listing tax bill and other measures, while at Washington it opposed the free coinage bill and favored a repeal of the silver act of July 14, 1890. In 1892, the merchants of Buffalo through their Exchange asked Congress to reduce the

duty on barley to 10c per bushel. At Albany they asked Governor Flower to appoint a Buffalo man a member of the State Board of Railway Commissioners. "Ask and ye shall receive." The things sought for would probably not have been granted without this action of the Merchants' Exchange, but as a result of their efforts they generally got what they wanted. In 1893, however, Governor Flower reappointed Michael Rickard of Albany to the State Board of Railway Commissioners.

At a convention of commercial bodies in Washington, in September, 1893, the Merchants' Exchange was represented. The convention favored the repeal of the Sherman law. This gathering, known as the Sound Money Convention, urged upon the Government the maintenance of our money circulation on a par with gold and endorsed President Cleveland in his call for an extra session on this subject.

Three years later we find the Merchants' Exchange addressing Congress again, urging the cancellation and retirement of the greenbacks and treasury notes. At this period it paid large attention to the National financial policy which was then the paramount issue before the country. And so in later years it has continued alert and watchful of all measures, whether relating to State or National matters, likely to affect for good or ill the welfare of its home community.

No committee of recent years has proved more useful than the Transportation Committee organized in 1884. We find it the next year recommending to the Exchange that the General Government be urged to complete certain lake channels and to improve shallow harbors. A committee, headed by Alonzo Richmond, made a most thorough and excellent report of freight rates and the relations between railway and canal routes. In the summer of 1886 a Freight Bureau was formed, which collected information for the shippers of Buffalo. Its letters and pamphlets advertised the city in a new and desirable way. An early outcome of its efforts was the abolition of certain discriminations in freight rates, especially those which had operated against the live-stock business. The Bureau followed this up with reports of delay in the delivery of cars at elevators; and that

evil was lessened. It soon brought about a regulation of rates charged for unloading. In 1888 we find established through its efforts a uniform method of handling car grain. The next year in response to an invitation from the Exchange, the State Railroad Commission held a session in Buffalo, resulting in a report and recommendations satisfactory to the Exchange.

Among the large achievements which apparently should be accredited in their inception to this Transportation Committee are those of charter revision as taken up in 1890 and the grade crossings work. In March, 1890, the committee reported the draft of a bill to prevent extortion or discrimination for the transportation of passengers and freight. It was an early step in a long fight, in which the Merchants' Exchange through this committee kept well at the front. In the spring of 1893 a special committee argued at Albany in favor of the Railroad Discrimination bill.

Work in this field was accomplished year after year. In 1898 new by-laws reorganized the committee, providing for the Niagara Frontier Freight Bureau of the Buffalo Merchants' Exchange, under a board of twenty managers.

In 1903, owing to changed conditions, the Freight Bureau was discontinued and the Transportation Committee in large measure now covers this field.

It has secured reduction of rates on many classes of freight and has brought about a much better state of affairs than existed when it was organized, almost a quarter of a century ago.

The miscellaneous city matters which have been promoted by the institution whose achievements we trace, even in the last twenty years, would make a list too long to include here. Some of them, however, should have mention.

In 1886 we find at work a special committee on charter revision, another calling for better fire protection for harbor interests. The next year we find the Exchange protesting against overhead wires and electric cables in the business district, with a result that a great mass-meeting was held calling on the offending companies to bury their wires. And the wires were buried.

In March, 1888, at a special meeting of the Exchange, it was suggested that invitations be sent to the Democratic and Republican organizations of the State, inviting them to hold their State convention in Buffalo. This effort was rewarded. Both the conventions were brought to Buffalo, the Board spending something like $2500 for incidental expenses and the city profited by the large influx of visitors.

The next year the Exchange took the initiative in forming, with other organizations, the Citizens' Association of Buffalo.

In 1891 its Postal Committee reported on desirable sites for a new postoffice. In 1893, it was active in behalf of a reduction of telephone rates and then, as in many other years, it favored measures for improving the harbor, both the inner and the outer, for enlarging the slips and canals; and it especially favored the charter which became a law March 27, 1891. Three years later it also advocated the amendments to the charter which Governor Flower signed February 21, 1894.

It is interesting to note that at a meeting of the Exchange, April 13, 1893, resolutions were adopted protesting against legislation at Albany which sought to reorganize the Police Department of Buffalo without giving the citizens a chance to be heard. It was then resolved as the sense of the meeting that "the Legislature should not pass or the Governor approve any further bills relating to the city of Buffalo without such measure first receiving the sanction of the Mayor, of the Common Council and the city of Buffalo." This was emphatically a demand for home rule in Buffalo. A citizens' meeting was held under the auspices of the Merchants' Exchange, and from this movement of 1893 there came about the present system by which measures pending before the Legislature relating to the home affairs of Buffalo must be submitted to the city's representatives before enactment.

The fact that Governor Flower signed the $60,000 appropriation bill for Ohio Basin improvements March 19, 1894, was chiefly due to the insistence of the Merchants' Exchange.

The next year we find that body urging legislation in favor of more rapid transit in Buffalo, taking a stand in favor of a bridge to Grand Island, endeavoring to solve the excursion dock puzzle, etc.; and joining in an invitation to the National Educational Association to meet in Buffalo in 1896.

More and more it took an active part in a greater number of city subjects. It turned its attention to school reform and meetings of the Citizens' Association were held on 'Change in 1895. In later years it has been an earnest advocate of the establishment of trade schools and a technical high school. Twelve years ago the Merchants' Exchange told the city that there must be better police protection for harbor interests and after the usual struggle appropriations for such protection were made.

In 1895 it promptly endorsed the invitation of the Grand Army Posts of the city which brought to Buffalo the National Encampment, G. A. R., in 1897, in behalf of which and during which it gave its services and its financial aid.

At the request of the Merchants' Exchange, joined to that of the Common Council, a new steamer of the Cleveland & Buffalo Transit Company was named "City of Buffalo."

As early as 1895 it favored the establishment here of a Forestry Bureau, a measure which, though opposed in many quarters, has finally won the necessary legislative sanction, and is now, in 1908, having its first trial in Buffalo.

Through a formal request from the Exchange to the Postoffice Department, March, 1895, improved mail service and letter distribution, especially of Buffalo letters in New York, was brought about. This was for the better expedition of business depending upon letters mailed in Buffalo late in the day.

From about 1896, when various questions connected with the bringing of electric power to Buffalo became prominent, the Exchange has taken many helpful steps in the matter. It was on October 15, 1896, that the first electric power from Niagara Falls was received in this city by the Buffalo Street Railway. On the evening of January 12th following Buffalo celebrated this electrical transmission with a great

banquet. Nikola Tekla was present and the Merchants' Exchange was largely represented.

The extension of the outer breakwater to Stony Point; additional fire tugs in the harbor; the erection in Buffalo of a Marine Hospital; the revision of smoke ordinances; the establishment of public play-grounds; the erection in Buffalo of the State monument to President McKinley—these and scores of other achievements for the benefit of Buffalo must be credited to the efforts of the Merchants' Exchange and Chamber of Commerce.

The Bureau of Conventions and Industries, established in April, 1899, played for a time an important part in the work of the organization. A man well fitted for this service, Mr. Curt M. Treat, was appointed secretary in May, and served until 1904. His peculiar energy and fitness for the task brought probably half a million visitors to Buffalo before 1902. The Pan-American Exposition Company subscribed $1500 to aid the work of the Bureau and during the Exposition season of 1901 over three hundred different conventions, some of them attended by thousands of delegates, were held in Buffalo. Since that time the Bureau has continued its work with satisfactory results.

From first to last the Board of Trade, Merchants' Exchange and Chamber of Commerce have been the city's chief representative as host for distinguished guests. Not to go too far back, it is interesting to note that from about the time the Merchants' Exchange became well established in its Seneca-street home, it began to entertain distinguished visitors. Sometimes these visitors were representatives of foreign governments, oftener they were Congress committees investigating certain subjects. September 15, 1891, distinguished members of the United States Senate—Senator Morrill of Vermont and Senator McPherson of New Jersey—came to Buffalo and on the 16th were given a hearing at the Exchange to assist them in their investigation of United States trade relations with Canada. Some months earlier in that year, the Senate Committee on Trade Relations, headed by the Hon. George S. Hoar of Massachusetts, had been given also a hearing at the Exchange, and in July the

Congressional Committee on Harbors and Rivers was the guest of the Merchants' Exchange, to the ultimate advantage of Buffalo.

In 1899 among the distinguished guests were Lord Charles Beresford and Admiral Sampson, a reception being given to the latter on December 15th. Admiral Schley has also been the guest of the Exchange. In 1900 the River and Harbor Committee of Congress visited Buffalo. The Merchants' Exchange took entire charge of the party and made sure that nothing was overlooked necessary to impress upon them the need of adequate harbor appropriation at this point.

The next year, the visitors' book records the names of Mark Hanna, of Vice-President Roosevelt, of Governor Odell, and numerous foreign representatives, the presence of many of these, of course, being due to the Pan-American Exposition of that year.

Comparatively recent social events of note include the entertainment of the Honorary Board of Filipino Commissioners, June 25th and 26th, 1904; of Prince Pu Lun, representative of the government of China at the St. Louis Exposition; and one of the most notable social incidents in the history of the Chamber of Commerce, the reception of the Iron and Steel Institute.

XV. The Chamber of Commerce.

Early in 1903 steps were taken to change the name of the Buffalo Merchants' Exchange to the Chamber of Commerce of Buffalo. By order of the Supreme Court, May 19th, the Exchange was authorized to assume the name "Chamber of Commerce of Buffalo," on and after July 1, 1903. The change indicates the increased scope in the work of the organization. "To increase its power for good in the community," "to create a broader public spirit among our citizens," were phrases in President Dodge's address of January 13, 1904, which fairly show the spirit that prompted the change. It was desired to reach, to interest and to

affiliate as many classes of Buffalo's business men as possible.

After some months of negotiation the Board of Trade, on March 20, 1905, voted to buy the "Granite Block," having a frontage of 77 feet on the west side of Main Street, 44 feet north of Seneca; and also to buy the 40 feet on Seneca, adjoining the Board of Trade building on the east. The purchase of these properties, at approximately $250,000, gave the Board of Trade the whole Seneca-street frontage between Pearl and Main, except the Main-street corner occupied by the Bank of Buffalo. The new purchase surrounded this property on the north and west; and on it, in September, 1905, the old buildings having been torn down, work was begun on a thirteen-story structure which when finished towered high above the dome-capped bank on the corner, and seemed to embrace and shelter it—symbolizing, obviously, the relations of the city's commercial and banking interests.

The new building was planned by Green & Wicks, architects. It is of steel-frame construction, fireproof, the exterior in semi-glazed terra cotta. In design it is described as "modern French," with a balcony at the twelfth story, a high railing above the cornice, and ample window space. Six elevators give rapid transit for all floors; and in its interior work, plumbing, electric lighting, etc., the building is a good example of modern office construction, uncommonly attractive in finish and furnishing. It cost approximately $400,000, and was so planned as to connect with the older building, making one interior with convenient arrangement of offices, hallways, elevators, etc., and with a minimum amount of change in the oldest part. It furnished the additional space that had been needed, with much desirable renting room. Handsome offices on the ground floor were fitted up for the Columbia National Bank; this and other businesses located there have already made the Chamber of Commerce Building an important nucleus of commercial and banking interests.

On April 18, 1907, the Chamber of Commerce gave a great dinner in celebration of the semi-centennial of the or-

ganization—reckoning from the incorporation of the Board of Trade in 1857—and the dedication of the new building. The exercises included the formal presentation of the building, by Robert R. Hefford, chairman of the building committee, and its acceptance by President William H. Gratwick. Chief among the guests was Governor Hughes, who spoke for "The State of New York," as Mayor Adam did for "The City of Buffalo," the Hon. W. Caryl Ely for "The Niagara Frontier," and Henry J. Pierce for the Chamber of Commerce. The occasion was of the sort that begets enthusiasm, and out of enthusiasm come results. One feature was "the campaign for 500 new members," entered into with spirit, and proving successful. By the spring of 1908 the membership had reached 1500.

In the five years that have passed since the establishment of the Chamber of Commerce on its present basis, Buffalo has profited by its work in many ways. In 1903 the Western New York Canal Enlargement Association was formed, with committees on Publicity, Speakers, Finance, Election-Day Organization, etc. The result justified the effort, for the State vote gave a majority of over 245,000 in favor of canal enlargement under the law of 1903.

The Buffalo Chamber of Commerce was and is among the most ardent advocates of this improvement. It also initiated the project, now well towards accomplishment, with $700,000 appropriated, for the construction of a ship canal and lock around the rapids in the Niagara at Black Rock. This is an achievement of its Niagara River Improvement Committee. Its Harbor Committee has not only worked in behalf of adequate Federal appropriations, but has secured from the city the deepening of Buffalo river and the ship canal to 23 feet.

The Chamber of Commerce suggestion, in 1903, of an annual carnival for Buffalo, took root, and blossomed in 1907 in the Old Home Week jollification. It has been, however, less concerned with the pleasures than the necessities of Buffalo. Some of its efforts are put forth to bring business to Buffalo. More are directed towards improving the living conditions for the people of Buffalo. It brings

conventions to the city. It plans and runs trade excursions to Buffalo. Other tours in the city, with an obvious purpose, are called "Seeing Buffalo Grow" excursions. But it also keeps at work on what may be termed necessities of the city, among which, now receiving its attention, are: the railway station problem; the further improvement of the harbor; the straightening of Buffalo river for flood abatement; the opening of a direct route from the business center to South Buffalo and the steel works in West Seneca; the abatement of the smoke nuisance; the extension of Elmwood Avenue; the establishment of a technical high school; in short, any phase of our municipal life which calls for the attention of the public-spirited citizen, is regarded as properly within the sphere of activity of the Chamber of Commerce. It can turn from State or National affairs to offer prizes to school-boys—as it did in 1907, establishing two prizes, of $100 and $50, for the highest general average respectively in the day and night schools.

In recent years it has brought about the affiliation of numerous bodies. In 1905 the Real Estate Association and the Retail Merchants' Board both entered into close relations with the Chamber. Something of the scope of its present work may be judged from the following list of existing committees, many of which are very much in earnest in prosecuting their special work: Arbitration, Banking, Barley and Malt, Canal, Civic Improvement, Convention, Finance, Grain, Harbor, Insurance, Manufacturers, Membership, Municipal Legislation, Niagara River Improvement, Postal Service, Real Estate, Rooms and Fixtures, Technical High School, Transportation, Retail Merchants' Board. Under some of these committees are organized bureaus, such as the Bureau of Industrial Information, in the Manufacturers' Committee, which has collected and distributed information regarding articles manufactured or handled by Buffalo factories.

In Buffalo the Chamber of Commerce stands emphatically for coöperation. That it stands for much in the history of the city, the foregoing sketch proves. The outcome of the toil, the hopes and aspirations of the past, it is also a pledge

and guarantee of the future; and because of it—to adopt the phrase of the Hon. E. C. Sprague, in his remarks at the inauguration of the Merchants' Exchange Building in 1884—"our city is richer in all the elements of human well-being, . . . the foundations of her prosperity are strong and sure."

PRESIDENTS OF THE BUFFALO BOARD OF TRADE, MERCHANTS' EXCHANGE, AND CHAMBER OF COMMERCE, FROM 1844 TO 1909.

BOARD OF TRADE.

(Constituted, Jan. 16, 1844. Incorporated, Mch. 7, 1857.)

1844.	Russell H. Heywood.	1863.	George S. Hazard.
1845.	Russell H. Heywood.	1864.	George S. Hazard.
1846.	Russell H. Heywood.	1865.	Silas H. Fish.
1847.	Henry Daw.	1866.	Phineas S. Marsh.
1848.	Philo Durfee.	1867.	Phineas S. Marsh.
1849.	George B. Walbridge.	1868.	John H. Vought.
1850.	Hiram E. Howard.	1869.	S. Sturges Guthrie.
1851.	Hiram E. Howard.	1870.	Charles G. Curtis.
1852.	Silas H. Fish.	1871.	James D. Sawyer.
1853.	Samuel J. Holley.	1872.	Alfred P. Wright.
1854.	Hiram Niles.	1873.	Charles A. Sweet.
1855.	George S. Hazard.	1874.	E. P. Dorr.
1856.	Merwin S. Hawley.	1875.	Cyrus Clarke.
1857.	George S. Hazard.	1876.	Cyrus Clarke.
1858.	James R. Bentley.	1877.	Alonzo Richmond.
1859.	Albert Sherwood.	1878.	William H. Abell.
1860.	Charles J. Mann.	1879.	Jewett M. Richmond.
1861.	Jason Parker.	1880.	George Sandrock.
1862.	George S. Hazard.	1881.	John B. Manning.

BUFFALO MERCHANTS' EXCHANGE.

(Incorporated, Apr. 14, 1882.)

1882.	James N. Scatcherd.	1886.	Albert J. Wright.
1883.	James N. Scatcherd.	1887.	James R. Smith.
1884.	Eric L. Hedstrom.	1888.	Robert B. Adam.
1885.	Eric L. Hedstrom.	1889.	John C. Graves.

1890. Peter C. Doyle.
1891. John N. Scatcherd.
1892. John N. Scatcherd.
1893. George Clinton.
1894. Robert R. Hefford.
1895. Robert R. Hefford.
1896. Robert R. Hefford.
1897. Alonzo R. James.
1898. Robert R. Hefford.
1899. Alfred Haines.
1900. Alfred Haines.
1901. Ogden P. Letchworth.
1902. John J. McWilliams.
1903. Leonard Dodge.

CHAMBER OF COMMERCE.

(Name of the former Merchants' Exchange since July 1, 1903.)

1904. James J. H. Brown.
1905. Henry J. Pierce.
1906. William H. Gratwick.
1907. William H. Gratwick.
1908. John W. Robinson.
1909. Elliott C. McDougal.

REMINISCENCES OF

ERIE CANAL SURVEYS

IN 1816-1817

By WILLIAM C. YOUNG

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

WILLIAM C. YOUNG.

FROM A PHOTOGRAPH TAKEN ABOUT 1868, IN THE POSSESSION OF THE BUFFALO HISTORICAL SOCIETY.

REMINISCENCES OF
SURVEYS OF THE ERIE CANAL
IN 1816-1817

By WILLIAM C. YOUNG[1]

In 1816 the first surveys were made on which to base plans and estimates for the Erie Canal. My recollections of incidents in connection with those surveys are the subject of this paper, being then a rodman of two of the engineering and surveying parties.

We surveyed the portion called the Middle Division from Rome, westerly to Seneca river, and that portion of the Eastern Division, from Rome to Schoharie creek, in all 154 miles. The remaining portion of the Eastern Division to Albany was not surveyed that year. The Western Division from Seneca river to Buffalo was assigned to Judge James Geddes, of much note as a surveyor, explorer and engineer.

The report of the surveys was required at an early period of the legislative session of 1817, which limited the

1. Read at a meeting of the Buffalo Historical Society, at the author's residence, Jan. 15, 1866. Now first published from the original manuscript. Its value is by no means lessened because of the quaintness of the style. Though the poetical effusion with which Mr. Young concluded his reminiscences may not be canal history, it happily recalls the early gatherings of the Historical Society, when friends and neighbors met in informal mood. The "club meetings" of those early years offered other than intellectual refreshment; yet the papers prepared for these meetings include some of the most valuable contributions that have been made to our local annals.

field work to make timely arrangements for the maps, estimates and reports.

My residence at that time was in Whitesboro, Oneida County, a village between Utica and Rome.

Jonas Platt and Thomas R. Gould, lawyers and statesmen, resided there. Benjamin Wright, land surveyor, civil engineer and statesman, resided at Rome. These men were most prominent actors as legislators in incipient measures for the canal. As previously concerted between them, in 1818 Judge Wright seconded the motion of Judge Forman for partial explorations of the country west of Seneca river for an interior line for a canal, so called in contra-distinction to the canal route through Lake Ontario, Oswego river and Oneida lake, commonly accepted as the only feasible one for a water communication with Lake Erie. Thomas R. Gould, as chairman of the committee to which the resolution was referred, reported the joint resolution which was passed, and under it the survey was made.

In 1810 Judge Platt, a State senator and leader of the Federal minority of the Senate, influenced measures for engaging DeWitt Clinton, the leader of the Republican majority, to second the important legislative steps for the canal, he having declined to lead and make the motion, but seconded it and refrained from a speech on the question, thus freeing it from party influence. Mr. Clinton took an active part as a commissioner under this first measure, made the report and introduced the bill for further progress, and became a leader and champion of the Erie canal policy; and subsequently when the Federal party had the ascendency in the then council of appointment, Judge Platt, as one of them, proposed Mr. Clinton as Mayor of New York City, and appointed him.

Such were the men of my locality; respected, honest and obeyed, and to follow them as leaders was the desire of him who directed my footsteps and procured for me occupation in the surveying and engineering parties of 1816 and 1817. Thomas R. Gould was a member of Congress in 1817 and 1818, and procured for me a cadetship at West Point, and this ended my connection with the Erie canal.

until after its whole completion and since, but collaterally in connection with making and operating the railroad alongside. Other men of Oneida county will be named in this paper who were my seniors in years and knowledge; and yet another class, after those first noted, such as Canvass White, Nathan T. Roberts and John B. Jervis, who have names and fame as projectors and makers of works of the Erie canal, infinitely beyond the reach of the influence of my weak and humble pen pretensions.

Judge Wright organized his engineering and surveying party at Rome in June, 1816, and established stations and bench levels from which to commence his survey, and proceeded westerly.

Mr. Broadhead subsequently organized his party, and from the same station and level benches proceeded easterly for a connected survey. He had proceeded with the survey to Herkimer, 31 miles of his portion to be surveyed, when Mr. Wright completed the 77 miles assigned to him. The method of the survey was as follows—and homely and unartistically described as it may be, yet the detail of small events is incident to the theme of this paper.

The party consisted of 13 persons, to rank and station thus: A chief engineer, a surveyor, an assistant engineer, two rodmen, two chainmen, three axemen, a packman, a cook and a teamster.

The surveyor, with an eye to engineering skill, would take a course over ground of probable water level, then covered with large trees and small woods of hemlock, cedar, alder bushes and weeds, and sight an object (without flagmen), and note its compass bearing. Then, with compass and one arm, and staff in hand of other, would lead the way through swamp and swale, still eyeing the object ahead until reached.

One axeman closely followed him, chopping bark from adjacent trees near the line. Two other axemen then cleared a pathway about four feet wide of bushes, weeds and all obstacles to level sighting. The chainmen then followed and established station stakes at four chain distances driven by one of them. At the foot of each stake a peg

would be driven level to the surface of the ground, or on hard earth the heels of the rodmen's boots would make a solid standpoint for the rod to rest upon, that no variation in the base would take place between the forward and back sighting; also that in returning it would be a standard for new operations. Bench marks more permanent were the usual standards for level references of succeeding and repeating surveys.

A prominent root of a tree just under a broad hewn surface would be found by hewing, to rest the rod upon, and its level marked on this surface for all succeeding ones.

The assistant engineer then placed the leveling instrument intermediate to stations and nearly equidistant therefrom, and screwed it to a level. The chief engineer then sighted on the graduated poles of the rodmen; the one in the rear first and then the one in front, and from their reading would determine the rising or falling grounds and the variations from a water level by subtracting and additions, requiring judgment to determine which of these to perform. The surveyor would note the distance at which water courses and farm lines would be crossed; the kinds of timber passed through, and of the soil, whether sand, clay, loam, gravel, rock, stone, swamp and swale, and sketch surrounding objects as outlines for mapping purposes and estimates of costs.

The engineer would note the level of water beds in inference to the water line, and other changes of general surface intermediate to stations; and when openings of bush and woodland enabled, would sight far away from the line, to determine the general slopes of the surrounding surface.

When at successive stations there resulted an evident ascending or descending surface, from the standard level, the surveyor would be hailed and retrograde steps taken to a station of suitable level and a course pursued as experimental as before, thus feeling the way for a water level. Ridges and points of land would carry the line of survey far to the north of the general course and the valleys of water courses, as far again to the south, to keep the water

level. In the final location of the canal these ridges were cut through and valleys filled up.

Oneida lake, bordering the field of survey miles away on the north, indicated the practicability of a long water level which was the engineering principle of the survey, following its table lands until its borders were passed and the waters of Onondaga, Skaneateles and Owasco lakes changed the water level standard to suitable lock lifts and depressions according as feeders and supply of water for intermediate levels could be found.

The packman brought up the rear with dinner sack on his back, and water can at his side, to replenish which he would seek for fresh running streams—a rivulet, a brook or gushing spring. And yet the pools of stagnant water were often drank from by the laboring men of the party, violently exercising in the foul, moist air of a dense forest in July and August heat, though so shaded from the sun.

A teamster, a cook, a two-horse covered wagon, stored with camp equipage and provisions, was the nucleus of the party. Its appendages were: A dog, a gun, two tin horns, camp kettles and frying pans; and for table and furniture, a fallen tree, or a log, a hillock, a fresh-hewn chip for the plate, a pointed or forked stick for roasting-spit; and a pocket jack-knife carried by each one of the party. Hard bread and salt pork constituted the standard bill of table fare, though fresh fish and small game, taken in exchange for pork with Indians of Oneida, occasionally gave savory odors from camp fires.

The line of survey was in the general direction of the highway and turnpike from Rome and Utica westerly through Verona, Vernon, Oneida, Chittenango and Syracuse. Lateral roads to this crossed the line of survey leading to and around Oneida lake. By these crossroads the teamster and cook were taught to judge of proper localities for camping grounds to interrupt the line of survey, and changed as directed by the chief engineer once or twice or perhaps three times a week. Dry ground, fresh

water and hemlock boughs were requisites for camping grounds.

Two tents and a portion of the baggage wagon well spread with foliage of the hemlock, odorous and fresh, upon which to spread blankets, afforded shelter and shade for sleep and rest: and waking dreams of the great work undertaken. The tin horn appended to the baggage wagon and one carried by the packman guided our steps to such resting places when in advance of the survey; our steps would be retrograde to the camp more commonly than ahead, for nightly rest and shelter.

Occasionally cleared fields and beginnings of cultivated farms would be crossed; also lands chopped, logged and underbrushed, abandoned to the rattlesnake, by whose rattle our steps were arrested, a death blow given the reptile and his tail rattle taken as a trophy and curiosity.

Windfalls, acres wide and long, were in our way, with trunks of large trees prostrate and roots turned up, entangled and entwined, root with branch, and so filled in with second growth of bush and brier and noxious weeds as to be most formidable obstacles to get through with line and level.

The line of survey passed some two miles south of Saliner [Salina] (Salt Point), so called. The novices of the party went in a body to see the salt-boiling process.

At the crossing of the outlet of Skaneateles lake, called the Jordan river, a well cultivated farm bordered its banks; these green fields and still waters inspired longings for relief from the weary toils of swamp and thicket. The mosquitos swarmed about our faces and hands. The latter being fixed upon instruments requiring a steady purpose gave no weapon of defense to crush or brush off the blood-sucking insect. Moss and bark, dry leaves and twigs, were stuffed into cylinders of oyster-keg size, of birch bark, and strung on shoulders, ignited to a smoking state, as some relief. A large tree was noted near our path, into the hollow of which all of our party entered through a small hole, cut in one of its sides, and stood elbow to elbow, facing inward, with backs against its inner side of shell, and still

there was room for more. It was a buttonwood, and bulging from the root, but shoulder high, assumed its body shape and size.

A country woman, observer of our ways, expressed joy at the prospect of soft Lake Erie water for washing-days. She probably had read the report of 1811 by the commissioner, who supposed the waters of Lake Erie would flow to Albany and then by locks, or railway planes, boats were to be let down into the Hudson river.

The Seneca river was reached near and above Montezeumer [Montezuma], its water level noted as a connecting reference to any survey still westerly, and thus the field work of the survey of the Middle Division terminated.

The party returned to Rome, some by baggage wagon, others by stage, and were discharged. The chief engineer and the surveyor made the maps, profiles and estimates as a report to the canal commissioners, who in course reported to the Legislature at the session of 1817, in the proceedings of which it may now be found.

The present writer joined the surveying party descending the Mohawk river and its encampment opposite Herkimer village in the capacity of rodman, as before. Its manner of proceeding differed somewhat from that of the Middle Division.

The cleared fields required a flagman for the surveyor and chainman by which to shape their courses. The descending grounds required lifts or depressions to be made and intermediate water levels pursued with a view to saving cost in construction, with constant care for river flood on one side and hill torrents on the other.

Engineering skill was more exercised on this than on the Middle Division. The surveyor of this party, who led the way, learned by practice to take an early stand as most practical in canal making. The long level west of Rome induced its extension easterly, perhaps under undue influence of Utica men.

The baggage wagon, cook and tents were necessary, as almost every house on both sides of the river, although a tavern, was nightly filled with travellers, teamsters, drivers,

etc. Oat straw was the substitute for bedding, in place of the odorous and fresh twigs of the hemlock, of the more western survey.

A Yankee asked a Dutchman how his horses were made and kept so fat and sleek, and was informed that they were fed on oat straw but not half threshed. "Mien horse and mien self" was as quaint a saying with the then Mohawk Dutchman as is with us of more modern tastes and pretended refinement, "Strike my dog and you strike me."

Our bills of fare were as in the common walks of life: coffee, tea, bread, meats, vegetables, fruits, fresh milk and butter, products of rich alluvial Mohawk flats, arable hillsides and plains, beyond, then unsurpassed in fertility and productiveness, and with a class of people as epicurean in *cuisine* arts of English aristocracy as Sir William Johnson's family could disseminate.

About the time of which I write, it was the custom of Mohawk valley men to fit out trains of teams for the West of—

Chestnut, bays,
Sorrel, grays,
Black & roan,
Shimmering under the curry-comb.
With wagon-loads of
Fruits and berries
Jams and cherries
Luscious, for the Genesee flattes,
And loaded back
With wheat and grains
For the Mohawk plains
And for the Albany market.

In 1815 a "Young" man (the present writer) was clerk for Juba Storrs & Co. at Williamsville, Erie county. Benjamin Caryl, deceased, a principal of the firm, was his uncle, and Gen. Storrs (now present) another principal and since a cousin by marriage.

A period of ague and fever was endured till the fall season, when teams of such wagons as described were passing Williamsville easterly bound. A passage was taken and a seat resting upon the sideboards of the wagon base

rode upon to a home near Utica, a distance of about two hundred miles.

This line of survey was near to and crossing the highway which enabled the baggage wagon and cook to be at hand, at all times wanted, and the packman's services unnecessary. The September and October season was convenient for this survey. The meadows and grain fields were not injured by the tread of many persons. The mellow fields of the Mohawk flats were fresh sown with wheat, and its sprouting herbage was rich in view to the passing stranger. The butternut and shag-barked walnut afforded good pickings during leisure moments of the survey.

High-toned families lived on rich, alluvial flats with habits which were relics of Sir William, Sir John and Col. Guy Johnson's Mohawk aristocracy. There were many negro slaves in the valley: colored men were the more common laborers in the field.

A class of people of dark butternut complexion was common, called the black Dutch, companionable with the negro and apparently with his swine.

The passage of the gorge of the Mohawk valley at Little Falls was far more beautiful than at present. The side hill cliffs and precipices were covered with evergreen foliage of the pine, hemlock and cedar, which the axe and fires of canal and railroad innovations have made bare. Pockets in the rocks were great curiosities; they were quite regular in shape, some two or three feet in diameter and several feet deep. In one projecting cliff one of these pockets is open from top to a suspended base some twelve or fifteen feet through. In emerging from this narrow cragged and towering hill-pass are expanded Mohawk flats and gently rolling, sloping, arable lands, a pleasant view.

Just there, on the south side of the valley, General Herkimer's house and farm were prominent. He of Revolutionary fame fell in the battle of Oriskany. It was a large brick, gambrel-roofed house in a sightly location, but odd in more modern architectural rules. It is still to be seen from the railroad trains in passing.

In it there lived at the time of passing on this survey a family of some note and bearing, acquaintances of our chief engineer. He entertained them in sighting through the telescope of the leveling instrument, which reversed all objects looked at. Apparently, persons would be seen standing on their heads, heads of animals with feet in the air, trees standing on their boughs. This magic effect preceded the surveying party in notoriety, and brought crowds of visitors to our camp and field operations to see the curiosity. This annoyed our chief engineer beyond all description, who was cross and crabbed, petulant and uncongenial, but with his set associates, Utica exclusives.

Near and below Canajoharie there stood an antique building with end to the road and circular-roofed, with rear half burrowed in the hillside, and still within and under these might have been recesses in the rocks, caves, dens of safety, or evil contrivings. It was Kane's store in earlier times, a trading place of branches of a family of some pretension on the lower Mohawk and Hudson river valleys. A Yankee pedlar was brought before a Dutch magistrate at Canajoharie for violating the Sunday laws (so-called) prohibiting travelling on Sundays excepting with a magistrate's pass. With proper appliances the matter was settled and a pass procured which the Yankee was required to write and sign for the magistrate, the latter making the usual cross between the Christian name and surname. At length Kane's settlement day with his neighbors came and a bill for goods with order appended was presented to the magistrate, when he exclaimed: "Mein Gott, dat dam't Yankee pass!"

At the nose of the valley, so called, the river turns easterly and crosses directly through expanded flat lands to the mouth of Schoharie creek, passing Caughnewaga, the river depot for Johnstown, Sir William Johnson's home mansion and farm; he died in 1774. Sir John, a son, and Col. Guy Johnson, a son-in-law, succeeded to estates and Tory rule as well as to the confidence of Joseph Brant, an Indian chief—Thayendanegea, a (much questioned) warrior friend—

In whom there coursed the kindred tie
Of Sir William, Sir John and Col. Guy.
Thayendanegea's carnaged hand
Is powerless now, all o'er the land.
While threshold, bannister and door
Bear marks of blood as with the floor.
Where savage warfare, tory strife
Made havoc with the scalping-knife.
From Caughnewaga's mighty scare
Peace and quiet now reign there.
At John's hall, Sir William's reign
Was wide beyond the Mohawk plain
Where Thayendanegea's savage band
Knew no bounds within the land:
But raging like the Mohawk flood
Thro' work and defiles of the wood,
Of low-land, highland, crevice, glen
The haunts of wild cats, fiends of men!
Like raging fires that burn within
The very courts of Hell and Sin,
Till satiate with blood and strife
They strung the scalps and sheathed the knife.
Still rushes on the Mohawk tide
Regardless of the world beside,
Washing, bleaching, purging stains
Of bloody carnage from its plains
Till flesh and blood and whitened bone
Are mingled with the earthly loam.
Thus let the memories of the past
Be tales for peaceful homes at last.
And when the old folks join the "Young"
In plays of frolic and of fun,
They'll share the lot as seen by day,
Vicissitudes of foolish play
Which patiently they must endure
Till learned with equals to mature
Their plans for pastimes and for health
Whose years are sweetened with the wealth,
The honor, fear and love of God
With life to answer to His word.

Mr. Broadhead's party terminated its field operations at Schoharie creek, returned to Utica and were severally dis-

charged excepting the chief engineer and surveyor, who made returns of maps and estimates to the Canal Commissioners.

Practical civil engineers were not classed excepting with the land surveyors and artizan.

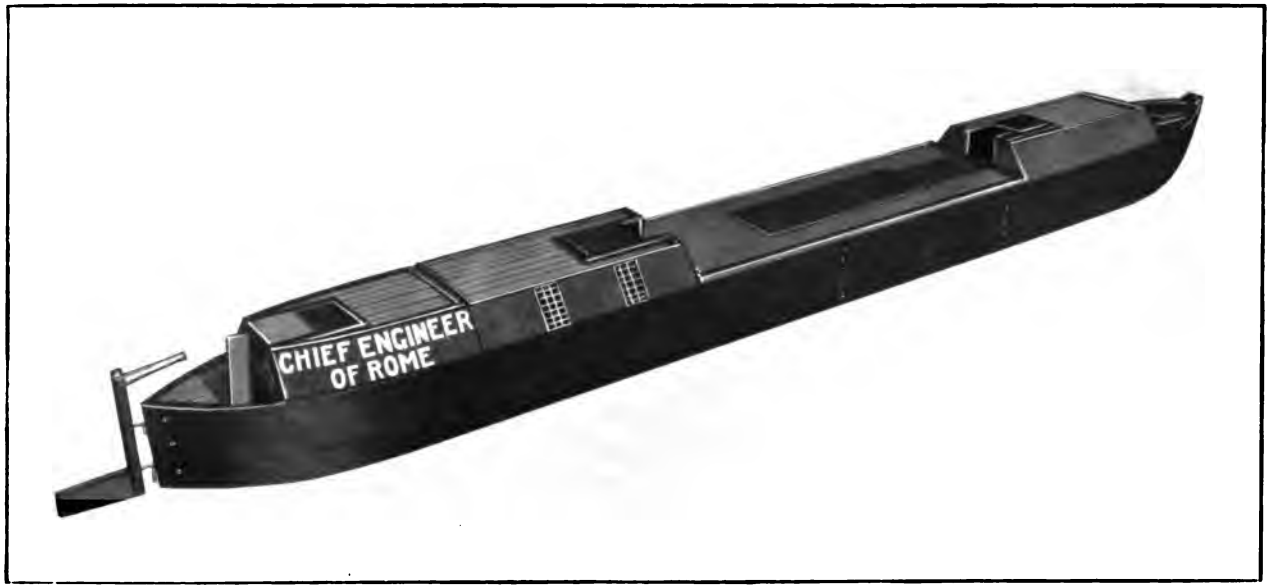
Locks and dams had been built under advisement of transient men of foreign practice as engineers to make navigation of the Mohawk river and Wood creek a passageway for boats of light burden.

Turnpike roads with birdseye culverts, and beds of pounded stone, under promptings of McAdam readings, were made, requiring the skill and art of civil engineers.

The prominent land surveyors of the district of country bordering the proposed line of canal were appointed engineers of the work and artizans of skill their assistants, who learned to plan with the progress of the work; and right well and at small costs were the first structures of the Erie Canal made.

A candidate under examination for a certificate to teach school, showing no knowledge of the studies usually pursued, was asked how he expected to teach that which he didn't know, and replied, "I guess I can learn as fast as the boys." Judge Benjamin Wright became the chief engineer of the Erie Canal. His social and political position was in a high place at the outset of this work. He became a distinguished consulting engineer, as works of internal improvement became a prominent field for enterprise all over the United States and Canada. He was coöperative in his counsels and ways in general. His wisdom required no cloak of exclusiveness. Mr. C. C. Broadhead took no prominent and lasting stand as a civil engineer.

Mr. Nathan S. Roberts was the surveyor of Judge Wright's party of engineers. He was a resident of Whitesboro (near Utica), taught school, where all made "manners" on entering or leaving schoolroom at session hours, surveyed land and superintended cotton factories. He punished severely with the ferule and rewarded with pictures of birds and animals, drawn and painted to please the youthful eye. His plottings and maps of land surveys



MODEL OF THE "CHIEF ENGINEER OF ROME."

THE FIRST BOAT BUILT FOR THE ERIE CANAL, BY WHICH THE TRIAL TRIP WAS MADE, UTICA TO ROME, OCTOBER 23, 1819. THIS MODEL, BROUGHT FROM ENGLAND IN 1817, WAS PRESENTED TO THE BUFFALO HISTORICAL SOCIETY BY WM. C. YOUNG, 1867.

were accurate, plainly and neatly drawn and written. He seemed qualified for any general business.

Before the connection on this survey we associated in common school, in a special course of geometry, and in an office of a cotton factory assorting yarn hank by hank, by scales when other duties allowed. He was then a middle-aged man, stout built, quick spoken and cheerful. He married a cousin (not of his), and during a lifetime of his professional wanderings they made a family and estate worthy of note. A homestead farm just west of Canastota, in Madison county, and on the line of the canal, of his laying out, was his resting-place after years of civil engineering service in this and other states.

Canvass White, a kinsman (cousin), was the surveyor of Mr. Broadhead's party of the Eastern Division. He went to England soon after the termination of the survey of 1816 and returned in season for field operations the next year, with instruments for laying out canals, with plans and models of a canal boat, and mind stored with observations upon the canal work of England.

He assumed the position as the most practical man in canal making, and with Judge Wright coöperative in superintending the making of much of the Erie Canal, and after years of professional practice was associated in counsels of important works of internal improvement in other states.

Mr. White discovered a cement of a rock in Madison county and its better qualities over quick-lime for the masonry of the canal, and introduced its use, a vital principle, to the stability, endurance and economy of the work. He founded the water power of the Cohoes Falls Company, whose lingering growth resulted in no benefit to him. He contracted extensively for the delivery of stone at Government works in the Delaware river, procured from the Palisades of the Hudson, and became pecuniarily embarrassed in its operations. He was small in stature, of delicate constitution, consumptively inclined, and died after years of usefulness, having been kind, quiet and considerate in all his ways.

Another name I would here record, though not connected with the surveys of 1816, but just thereafter, stepped from the walks of ordinary life into the works of the Erie Canal, became a distinguished civil engineer of importance and many works of the states, and is now the chief engineer of one of the great lines of said road, between the East and the West. John B. Jervis has a name, fame and manhood complete.

James Geddes was a distinguished surveyor and explorer for the Erie Canal, and was much more prominent in the service of the Surveyor-General of the State, who directed all explorations and surveys for the canal previous to 1816. He was the engineer of the survey of the Western Division in 1816 and 1817, and partially laid out the line between Rome and Utica for construction about the same time. One personal interview is my only recollection of him. He located the Champlain Canal, and had the reputation of having made it crooked to avoid the accumulation of water and its waves by which the banks would be washed. The force of each wave was to be broken against a curved bank of the canal.

Some practical expenses in superintending and laying out works of that canal gave the present writer a knowledge of the facts of its unnecessary curvatures; whether so designed for that purpose is uncertain. He did not take the stand of Wright, White, Roberts and Jervis as a practical engineer.

Mr. William Peacock, by direction of Mr. Ellicott, surveyed a line from the Niagara river easterly north of Mr. Geddes' survey, which latter was that of the present canal along Tonawanda creek and to Lockport. This book of maps, these plottings of surveys made in 1816 and 1817, is passed to the keeping of the Buffalo Historical Society.[1] It has undergone the vicissitudes of common life. The auction mart has been its portion and seclusions of the gar-

1. The book referred to, now in the library of the Buffalo Historical Society, is an atlas entitled: "Plottings of Surveys for the Erie Canal in 1816 and 1817." It contains sixteen beautifully executed original maps of sections of the Canal survey.

ret a resting place among the put-away and past-useful things of an ordinary lifetime; still treasured as an heir-loom of early memories. Its torn and tattered cover, stitched and pasted, cobwebbed, dusty, mouldy, mildewed, motheaten, and yet preserved: seared like the autumn leaf, its folds are yellow with age. Still it will outlast the flesh and blood of its worldly makers, one of whose spirits has been cheered by the companionship now to part forever.

Vale of the Mohawk, visions of the past,
Haunt of my dreams enduring to the last.

. . . .

Gentlemen—Your enduring patience during this reading is acknowledged.

A double portion, seems my lot,
To sate the soul and fill the heart,
And if I've failed in history's page,
To make a mark, so much the rage,
The bill of fare as fixed by roll
Must fill the void, complete in whole,
With coffee, cold meats, sandwiches brown,
Bread, biscuit, butter and deer lamb,[1]
Cider, apples, pickles and tongue,
Enough for all, both old and Young,
To which, adjourn, sans souci, all,
To banquet room, just o'er the hall.

1. The spelling suggests that the author meant venison.

SECRET HISTORY OF THE INCIPIENT LEGISLATION FOR THE ERIE CANAL

A few weeks after the writer of the preceding paper had read it at a meeting of the Buffalo Historical Society, he received the following letter from his cousin, F. C. White of Whitesboro, which so well embodies a chapter of the secret history of incipient legislation for the Erie canal that its inclusion here is warranted. The opening allusion is to papers published to establish the claims of Jesse Hawley.[1]

WHITESBORO, March, 1866.

WM. C. YOUNG:

My dear Cousin—The copy of the *Courier and Republic*, containing "a paper on the origin of the Erie canal," has been received, and for which please accept my thanks. Having read it with care, it appears liable to some criticism in this, that too much care and research are bestowed in trying to discover who has, or rather, who was the person, among our statesmen, really entitled to having made public, the first *idea* of connecting the waters of Lake Erie with the waters of the Hudson river. Practically, it seems to me of more importance to discover who were the first projectors and entitled to the high, and honorable position of projecting the first legislation of the State of New York, and which resulted in the completion of the Erie canal.

Jonas Platt was elected by the Federal party to the Senate of the State of New York and was a member of that body when Thomas Eddy of the city of New York came to Albany, as agent of the "Western Inland Lock Navigation Company," to obtain an enactment by the Legislature to enable said company to connect the

1. A synopsis of the essays of the Hon. Jesse Hawley, regarding the origin of the Erie canal, with other papers bearing on his claims for precedence as an advocate of such a work, are contained in Vol. II, Buffalo Historical Society Publications.

waters of Lake Ontario with the Cayuga and Seneca lakes, and he called on Senator Platt, for consultation, and often repeated such calls, until finally, General Platt said to him:

"Mr. Eddy, why not make application at once for a canal to connect the waters of Lake Erie with the waters of the Hudson river?"

To which Mr. Eddy replied: "It would frighten the members of the Legislature to such a degree that nothing would be granted, and I should lose even what I am sent here to obtain."

General Platt replied that he thought the greater project might be carried, if DeWitt Clinton would lend his aid and influence with the Democratic party, of which DeWitt Clinton was then one of the leaders, and confessedly its leader in the Senate, both agreeing that, if Mr. Clinton should oppose, the measure would be lost, and it was agreed that General Platt should see Mr. Clinton, and assure him that there was no political object in the application. It may be well to mention that General Platt was the leader of the Federal minority in the Senate, and he proposed to Mr. Clinton that he (Mr. Clinton) should introduce the joint resolution, spoken of by the author of the piece you sent me, as the resolution joint, that Thomas Eddy, Jonas Platt and DeWitt Clinton, were *"instrumental in procuring,"* in the winter of 1810.

Mr. Clinton declined to introduce the resolution as its mover, and it was agreed that General Platt or some other member of the Senate should introduce it, and Mr. Clinton would second it, but not make a speech. The resolution was offered, and Mr. Clinton rose and seconded it, but said nothing.

The above is what was related to me by General Platt in his office, I being a student of law in that office at the time, and at my solicitation he stated the above, as the secret history of that resolution. This I was anxious to obtain from the best source; deeming it at that time a measure of more importance than any other that had ever been agitated by our State Legislature. I had read the reports, and commentaries thereon of individuals who had broached the *idea* of water communication between the Great Lakes and Hudson river. Having seen the first practical move in that direction by our Legislature was, alone, the occasion of my seeking the conversation with General Platt, and of his disclosure to me.

The subject was more or less used by the political parties of those times, when it came before the Legislature, and DeWitt Clinton afterwards left the Democratic party, was elected Governor and became the great advocate of the canals, staking his popularity upon that issue, which was made against him, under the lead of

Erastus Root, a member of the House of Assembly, from Otsego county, a man of great talents, and leading the policy of the Democratic party in this State.

I have taken the liberty of giving you an account of the first ***practical legislation*** of the State, deeming it as of infinitely greater importance to know who the actors were, and by what means the great internal improvement policy was made successful in this State, than it can be to ascertain who originated the ***idea first,*** but never moved for its practical consummation—a wonder that challenges the world for its compact. The glory is our own—the work was accomplished, and the whole world benefited. The monument, although as yet unfinished, will stand for ever in the work itself.

Very respectfully, your ob't servant,

F. C. WHITE.

CANVASS WHITE'S SERVICES

CAREER OF ONE OF AMERICA'S MOST CAPABLE CIVIL ENGINEERS, WHO HELPED CREATE THE ERIE CANAL AND OTHER PUBLIC WORKS

By WILLIAM PIERREPONT WHITE

Conspicuous among the names associated with the early public works of the country stands that of Canvass White, who was born in Whitestown, Oneida County, New York, September 8, 1790. His father, Hugh White, a native of Connecticut, was a descendant of Deacon John White, one of the first settlers of the city of Hartford. His mother was also of Puritan descent, and from this source he derived those traits of integrity, indefatigable industry, and purity of character, of which his public life was so distinguished an example. His paternal grandfather served during the American Revolution as a quartermaster, and in that capacity, with the self-sacrificing devotion of the many heroes in that first struggle of the country for national life, expended his fortune for the maintenance of the army, receiving in its stead Continental paper money that became worthless in his possession.

In 1784, six years prior to the birth of the subject of this sketch, Hugh White, with a family consisting of his wife, five sons and four daughters, left his comfortable home at Middletown, Connecticut, and removed to Oneida County, New York, then a wilderness. His mother, of delicate constitution, unused to the rough exposure incident to pioneer life, died when he was ten years of age. From her he seems to have inherited a feebleness of con-

stitution that caused his early years to be a constant struggle between disease and health for the mastery. At an early age he began to display a talent for invention, and genius for improvements that resulted in the construction of several domestic and agricultural implements, that were in use for many years on the paternal homestead, and in the neighborhood.

The most of his minority was spent on his father's farm, with such advantages only for acquiring education as the very limited common schools of that period afforded; and it was not until the winter of 1803 that an opportunity occurred for him to pursue those studies essential to success in the profession he had chosen. In February of this year he entered the Fairfield academy, and there studied mathematics, astronomy, chemistry, mineralogy and surveying, until he completed the course of that institution, after which he continued the study of these subjects under Dr. Josiah Noyes of Clinton, New York.

At the age of seventeen he entered the store of Colonel Carpenter as clerk, where he remained until the spring of 1811. His health becoming precarious, a sea-voyage was advised as a means of restoration. He consequently shipped as supercargo on board a merchant vessel bound to Russia, and did not return to his home until October, 1812. The captain, while in Russia, remained ignorant of the declaration of war and commencement of hostilities between the United States and Great Britain, took in an assorted cargo, and sailed for Hull, England. He did not become aware of the war until they entered the English port, were made prisoners, and their ship and cargo seized. The captain and crew, however, were released, permitted to discharge their ship, take in another lading and continue their homeward voyage.

The ship has scarcely cleared the mouth of the Humber when there occurred a violent storm, accompanied by a high tide, and they were driven so far ashore that when the tide receded the ship lay sixty rods from the sea. As the vessel lay on its side, an inspection of the bottom disclosed the fact that the planking, over considerable of the

surface, was completely rotten, and that she was utterly unseaworthy. Young White advised that the rotten plank be stripped off and replaced by sound ones, and a channel opened through the sand that would admit the tide to the stranded ship. Work was at once commenced, and a very few days saw the ship which was about to be abandoned by her captain and crew, replanked, again afloat, and on her way to New York, where she arrived in the latter part of September.

His health was materially improved by the voyage, and on his return he again entered the employ of his former patron and friend, Col. Carpenter, where he remained until the spring of 1814, when, having raised a company of volunteers, he received a commission as lieutenant in Colonel Dodge's regiment, and took part in the assault and capture of Fort Erie, opposite Buffalo. While in occupation of the fort, with his command, he was severely wounded by a shell fired from the enemy's redoubt half a mile distant; soon after his recovery an opportunity occurred for revenging himself on the enemy. A reconnoitering party from the British camp was discovered in an adjacent wood, and Lieutenant White was sent with his command to capture or disperse them. He succeeded in capturing the whole party, killing and wounding several before they surrendered. He remained with his regiment until the expiration of their term of service, when he returned home, and resumed his studies, as previously mentioned.

In the spring of 1816 Judge Benjamin Wright was forming a corps for prosecuting the surveys of the Erie canal. Mr. White solicited a position, and was engaged by Judge Wright as one of his assistants. During this and the succeeding season he was employed in taking the levels westward from Rome. In this duty he acquitted himself so well that he very soon won the esteem of the chief engineer, between whom and himself ever afterward there existed a firm and unbroken friendship. About this time he made the acquaintance of Governor De Witt Clinton, who was highly pleased with his personal qualities and professional abilities.

At this early day the knowledge of canal construction among the engineers of the country was very limited, and Mr. White, at the earnest solicitation of Governor Clinton, determined to visit England for the purpose of examining the public works of that country, and procuring the most improved instruments in use.

In the autumn of 1817 Mr. White carried out his determination, and made a careful examination of the canals in the United Kingdom, traveling for this purpose more than 2000 miles on foot. He returned in the following spring, bringing surveying instruments and accurate drawings of the most important structures on those works, and much valuable information for the benefit of the State in the construction of its canals. About the time of his return there was much discussion on the subject of lock construction, some favoring wood, and others stone, or a combination of the two. It was, however, finally decided to build stone locks, using quick-lime mortar for the masonry, and pointing the joints with hydraulic cement, then imported at a great cost from England. Soon after, Mr. White discovered a valuable lime rock near the route of the canal in Madison County, which, after repeated experiences, he converted into a cement, equal to the imported, and at much less cost to the State. For this discovery he obtained a patent, but permitted its use under the promise of the Canal Commissioners that a just compensation should be allowed, not only for it, but for his expenses and services while abroad. The Commissioners, however, failed to obtain the necessary authority from the Legislature to fulfil their promise, notwithstanding the recommendations of the Governor and other officers of the State, as evidenced in the following extracts from official documents:

Governor De Witt Clinton, in a letter to a committee of the Legislature in 1824, states, that "Mr. White has been of great use in his operations as an engineer; and that his skill, industry, and integrity in that department furnish strong recommendations to the favorable notice of the State." Judge Wright stated before the same ecommittee, that "hydraulic lime had been generally used along the

canal since 1818, and part of 1819, in which year, after much persuasion by the engineers, it was used in all face work of locks and arches, the backing being laid in common lime. When common lime was used it gave evidence of soon failing. I have no hesitation in saying that the discovery of hydraulic cement by Mr. White has been of incalculable benefit to the State, and that it is a discovery which ought, in justice, to be handsomely remunerated." Mr. Flagg reported from the same committee that Mr. White, a principal engineer, had made this discovery after repeated experiments, and received a patent in 1820; and "that Mr. White introduced it at great expense amidst the doubts and fears which operate against its use."

The Canal Commissioners, in their report of February, 1820, state that they "have employed exploring parties in both the western and eastern sections. Between the Seneca and Genesee rivers Canvass White, engineer, has had the charge of a party, which has been engaged for several months in levelling over and surveying different routes for the canal line. These labors he has performed much to our satisfaction, and having presented a view of them to a meeting of our board held in October, at Utica, we thereupon decided in favor of the route originally explored between these rivers in the year 1816."

The canal, through and eight miles east of Utica, was completed in the fall of 1820, Canvass White being the resident engineer. In 1821 Messrs. Wright (principal) and White (acting), engineers, explored the country thoroughly from Little Falls to the Hudson, and pronounced impracticable the route from Schenectady connecting with the Hudson at Albany, and located the line *via* Cohoes and Troy. This location was finally fixed upon by Messrs. Wright, Geddes and White.

Early in the spring of 1822 Canvass White was sent to lay out Glens Falls feeder, and in that year he planned and directed the building of the lock and dam between Troy and Waterford, until the eighth of June, when William Jerome took charge.

Judge Wright, in a letter to Dr. Hosack, of December, 1828, says:

"It is proper that I should render a just tribute of merit to a gentleman who now stands high in his profession, and whose skill and sound judgment, as a civil engineer, is not surpassed, if equalled, by any other in the United States. The gentleman to whom I refer is Canvass White, Esq., who commenced as my pupil in 1816, by carrying the target; he took an active part through that year, and through 1817. In the fall of the latter year he made a voyage to England on his own account, and purchased for the State several levelling instruments, of which we stood much in need. He returned in the spring and brought with him much valuable information, which he has usefully developed, greatly to the benefit of the State of New York. To this gentleman I could always apply for counsel and advice in any great or difficult case, and to his sound judgment in locating the line of the canal, in much of the difficult part of the route, the people of this State are under obligations greater than is generally known or appreciated."

Simon Guilford, civil engineer, in a letter to Chas. B. Stuart, dated Lebanon, Pennsylvania, December, 1869, writes:

"In reply to your letter relating to the late Canvass White, C. E., I presume you will obtain, through others, a more extended and connected history, than I am able to give you. I will, however, relate an instance of his prompt decision and energy, which occurred upon the Erie canal at a time when I was serving him as assistant. When that portion of the canal, along the Mohawk river, between Little Falls and Canajoharie, was completed, and the supply of water was turned in, owing to a very porous soil over which a considerable portion of the canal was made, the supply proved inadequate, which was fully realized as the first boat passed, containing the Canal Commissioners, the principal engineer, Benjamin Wright, and others. The question arose as to how the difficulty was to be overcome. Mr. White replied, 'A feeder must be obtained from the river at this place' (a few miles above Fort Plain), and on being asked how long it would take to build a dam across the river, 900 feet long, so as to raise the water nine feet above the ordinary surface, he replied, 'a few weeks.'

"The dam was completed in sixty days, inclusive of a side-cut and bridge connected with it. Trees were cut and taken whole, the trunk with the tops, from timber land near, and placed, with the

butts down the stream in parallel rows; the limbs were cut partly through so that they were made to conform closely in line with the trunks, and the cavities filled with rocks and coarse gravel. The trees thus forming the main portion of the dam were weighed down and compacted by a heavy covering of stone material. With the trunks of the lower tiers of the trees left to protrude out several feet from under the lower slope of the dam, an apron or platform was formed, which served as a protection from an under washing of the gravel foundation.

"Mr. White's professional success, scrupulous integrity, and modest demeanor, in all transactions of life, won for him the enduring esteem of all with whom he was associated. For these admirable qualities of mind and heart, he became widely known, and, as a consequence, frequent and urgent offers were tendered him for engineering services in other states. He, however, continued in the active discharge of his duties as engineer on the Erie canal, until it was so nearly completed, that his place could be supplied from his assistant engineers, when he succeeded Loammi Baldwin as chief engineer on the Union canal of Pennsylvania. He continued in that position until the latter part of the summer of 1826, when, in consequence of a severe illness, contracted while conducting the surveys of the canal west of the Susquehanna river, he returned to Philadelphia, and resigned his connection with the company."

The distinguished civil engineer, W. Milnor Roberts, in a letter, dated St. Louis, December, 1869, writes:

"I recollect the first interview with Canvass White, which took place in the office of the Union Canal Company, in Philadelphia. Samuel Mifflin was the president, and my father, Thomas P. Roberts, was, for many years, the treasurer of the company. In 1823-24, Mr. Mifflin had a controversy with Loammi Baldwin, who was at the time the chief engineer of the company, which resulted in the resignation of Mr. Baldwin, and the appointment of Canvass White to fill the vacancy. During the controversy, a long and important paper written by Mr. Mifflin, was intrusted to me to be copied. Curiosity led me to interest myself in the matter under discussion, and in studying the paper I detected what seemed to me to be an erroneous statement, to which, through my father, I called Mifflin's attention, who expressed himself under great obligations, as it proved to be important. He urged my father to make an engineer of me; and he spoke to Mr. White after he had taken charge of the canal; and some time afterward, when Mr. White visited the

office in Philadelphia, I was sent for to meet him. His first remark was: 'He is very small, do you think he could stand rough and tumble engineering?' The interview ended with instructions to me to go up the Schuylkill navigation on board of a canal boat, and on arriving at Reading, to inquire for Mr. Olmstead, at the engineer's office. This I did, and in a few days I met Mr. White in Reading, who took me with him in the company's two-horse wagon on a tour along the line, visiting the works then in the course of construction. This was in the spring of 1825. Mr. Olmstead, who had charge of the eastern division, accompanied Mr. White to the end of his division, where he met Mr. Guilford, who was in charge of the middle division. Soon after Mr. Guilford met us, we came to one of his locks, nearly finished, concerning which, after taking a good look at it, I made my first engineering remark, as follows:

"'Why! Mr. White, don't you think that this lock is too small?'

"He smiled, saying blandly: 'I guess it's large enough.'

"Mr. Guilford said nothing at the time, but afterwards, when we had arrived at his headquarters in Lebanon, he said to me:

"'Don't you know that Mr. White advocated the small locks for this canal, coinciding with Mr. Mifflin in opposition to Mr. Baldwin? You must be careful about what you say about small locks.'

"I was young and inexperienced, and my remark became a by-word with the young engineers amongst ourselves. I had then seen only two canals—the James river canal in Virginia, and the Schuylkill navigation; the locks of which were 17 feet wide and about 90 feet long; whereas the Union canal locks were only 8½ feet wide, and 75 feet long; the design being that two boats from the Union canal should pass at one time through the locks of the Schuylkill navigation. I may remark that I have now no doubt that the adoption of so small a canal and locks for the Union canal was an error. There had been precedents for such small canals in England; but I think that the reasoning which determined the size in the case of the Union canal, on account of the small supply of water, was inadequate, if not fallacious. Many years after its first construction, it was enlarged under the engineering superintendence of my friend, Colonel James Worrall.

"My official or professional connection with Mr. White ended in 1831. . . .

"Canvass White, in his day, stood at the head of American canal engineers, and his strength lay in his cool, practical judgment.

He had no experience in railroad engineering, so far as I ever knew. He was a gentleman of very quiet manners, equal temper, and kind disposition. I never knew him ruffled, or impatient. His wife was a lady of great beauty, and they had a son, a fine boy when I knew him, whom I afterwards lost sight of, who became an engineer."

During the time Mr. White was engaged as chief engineer of the Union canal, he was called to New York for the purpose of examining the sources of supply for pure and wholesome water for the city. He reported to the mayor and aldermen, that, for the present need of the city, and its probable requirements for twenty years thereafter, a sufficient supply could be obtained from the Rye pond and the Bronx river, in Westchester county, "but after the city should extend to one-third the surface of Manhattan Island, it would be necessary to add the Croton river to their other resources." The report was accompanied with full details, and strongly impressed the city government with the importance and feasibility of the project.

The comprehensive nature of his mind, through which, at a glance, he grasped the salient points of a subject, and his systematic habit in arranging details, enabled him to accomplish an extraordinary amount of professional work. While engaged upon the two last mentioned enterprises, he was solicited to take charge of the works of the Schuylkill Navigation Company (the engineer having suddenly died), which was then in the course of construction. After making a rapid survey of the ground, and the plans of the company, he suggested alterations, and recommended the employment of Captain Beach as their chief; he continuing as consulting engineer, until the work was completed. At this time he was also consulting engineer for the Delaware & Chesapeake canal, Judge Benjamin Wright being the chief engineer.

The success and reported profits of the Erie canal gave an impetus to a canal construction in that day, that would have resulted in a system of artificial internal navigation as universal as our railroad system, could the capital neces-

sary for the purpose have been obtained. Projects were started in various parts of the Union, and a pressing demand was made upon the time of the few engineers then in the country.

The citizens of Hartford conceived the project of improving the navigation of the Connecticut river, and the Windsor locks were built by Mr. White as chief engineer. Careful financial men were led away by the prevailing spirit of the time, and large amounts were expended upon impracticable enterprises. Amongst these was the Farmington canal, constructed from New Haven to Farmington, and thence up the Farmington river, "as money could be found to prosecute the work." Mr. White was applied to for plans and surveys, and for an opinion of the value of it when completed; the former of which he furnished, and remained consulting engineer during the construction of the work. However, he frequently expressed to Mr. Hillhouse, one of the chief promoters of the enterprise, an opinion adverse to the success of the canal as a financial investment. The capacity of the canal proved to be far greater than the requirements for its construction.

In 1825 the traffic in coal from Mauch Chunk to Philadelphia had increased to such an extent that the Lehigh Coal & Navigation Company (who were bringing down the products of its mines in arks), finding its means insufficient to supply the increasing demand for coal, concluded to improve the navigation of the Lehigh river, and to ask the State of Pennsylvania to construct a canal along the margin of the Delaware river from Easton to navigable waters below. Josiah White, a member of the Society of Friends, and an energetic man, whose practical common sense and sound judgment enabled him to comprehend men and measures with much precision, was superintendent of the affairs of the company, and constructed at Mauch Chunk a wide basin for boats, and one mile of canal, in which were five locks. The work remained in this condition until the spring of 1827, when Canvass White, having regained his health, was appointed chief engineer, and the work was resumed and prosecuted with such diligence that

the first boat passed through the canal in July, 1829. At that time the Lehigh canal was the most capacious work of the kind yet undertaken in the country, and was considered a bold project.

The engineers under Mr. White were W. Milnor Roberts in charge of the western, A. B. Watford the middle, and John Hopkins the eastern division.

During the summer of 1825, Mr. White was appointed chief engineer of the Delaware & Raritan canal. He organized a party for preliminary surveys, and placed it under the immediate charge of John Hopkins, one of his most trusted assistants. This work was discontinued late in the fall, after the location of about twelve miles, and was not resumed again until the spring of 1831.

The construction of the canal from the Delaware to the Raritan river was attended by many difficulties, and met many obstructions, all of which were successfully overcome. In the prosecution of this important work, Mr. White always acknowledged with becoming gratitude the generous and wise counsel of Commodore Robert F. Stockton, who took an active interest in the success of the enterprise.

In the autumn of 1834, when this work was nearly completed, his health was so much impaired that his physician advised him to seek a more genial climate, with a probable hope of seeing him restored to health and usefulness. He sailed soon after for St. Augustine, Florida, where he died within a month after his arrival at that place. His remains were returned to New Jersey, and lie buried in the churchyard at Princeton, where his family resided at the time of his death.

Mr. White was personally popular with all who were favored with his acquaintance. General Bernard, a French engineer in the service of the United States, remarked of him, that "as a civil engineer he had no superior; his genius and ingenuity were of a surprising magnitude; his mild and gentle ways, his sweet and amiable temper, modest and retiring manners won his heart; he loved him very much, exceedingly." Henry Clay remarked, when speaking of him to a gentleman who was seeking an engineer

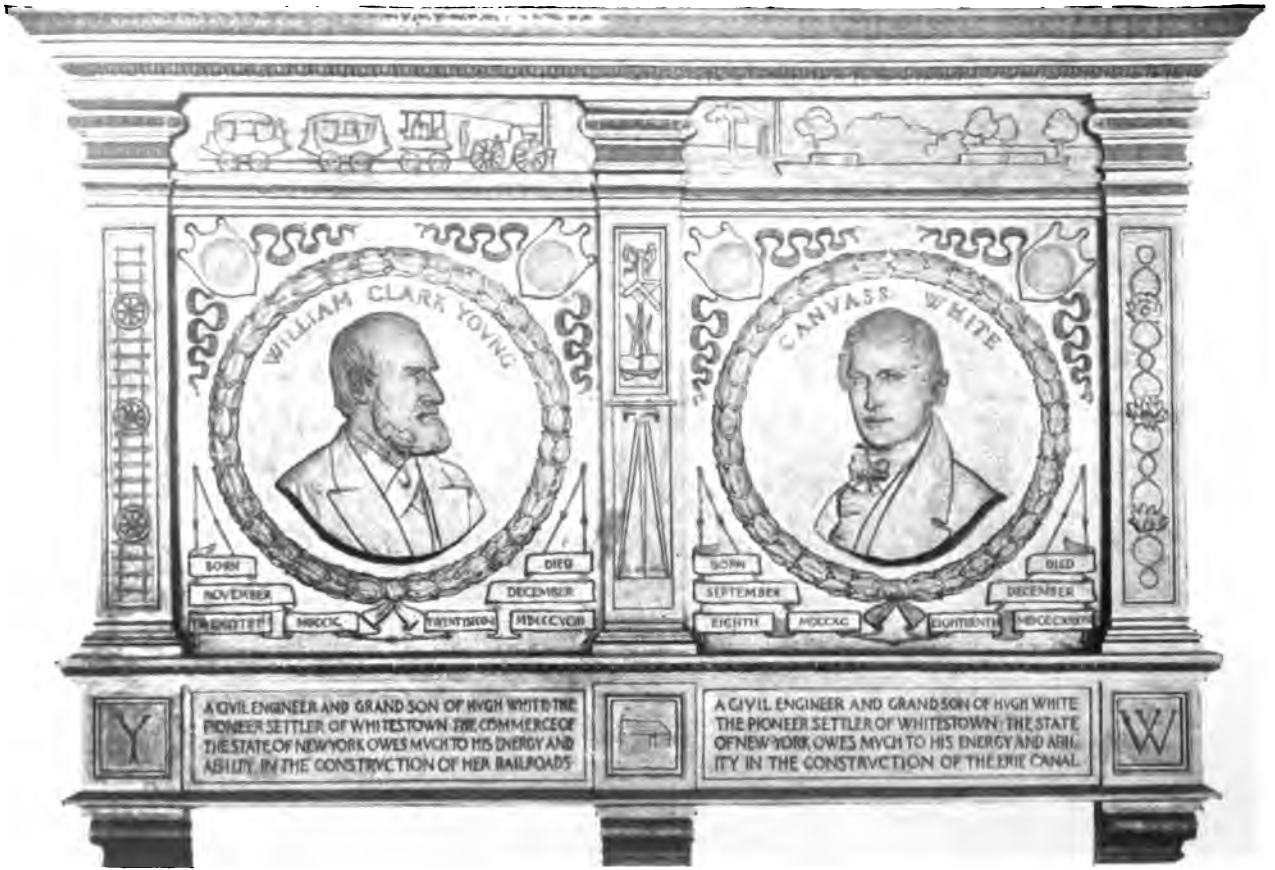
for the construction of the Chesapeake & Ohio canal: "Get Canvass White; no man is more competent, no man more capable; and while your faith in his ability and fidelity increases, your friendship will grow into affection."

In a letter dated July, 1860, the late Hon. Hugh White of Cohoes, New York, says:

"My brother, Canvass White, was in stature five feet nine and one-half inches; lightly made, weighing from 145 to 165 pounds; light complexion, light brown hair, blue eyes, wonderfully clear and bright; inclining slightly forward from a perpendicular when walking or standing; grave and thoughtful expression, yet full of affection and kindness, a broad intellectual forehead and well-shaped nose, and with a trifle more of flesh would have been an unusually fine-looking man. The most prominent and striking feature in the general contour of the person, was an unmistakable impress of genius, modesty and amiability. In conversation, you could not escape the conviction that what he said he was sure of, and left the impression indelibly upon those he desired to convince of the truth or feasibility of any plan or project he had in contemplation."

THE WHITE MEMORIAL TABLET.

An illustration herewith shows the bronze tablet, designed by Louis Tiffany & Company of New York, and placed in the Oneida Historical Society building at Utica. The right-hand tablet shows a bas-relief of Canvass White, civil engineer, born September 8, 1790, died December 18, 1834. The original log hut of his grandfather, Hugh White, is reproduced below the base of the center column in the tablet. This log house was erected at Whitestown in 1784. The panel between the middle and right-hand column above Canvass White's medallion carries the exact reproduction of the model of the first Erie canal boat, which is in the care of the Buffalo Historical Society. Back of the canal boat on the canal is an exact reproduction of Hugh White's frame house erected at Whitestown, which house is still in existence, somewhat changed today in the exterior finish from the above cut. The right-hand corner above Canvass White's medallion has an exact reproduction of the seal of the village of Whitestown, representing Hugh White, the pioneer settler wrestling with an Indian, which wrestling match occurred shortly after his settlement at Whites-


WILLIAM CLARK YOUNG
BORN
NOVEMBER
DIED
DECEMBER
A CIVIL ENGINEER AND GRAND SON OF HVGH WHITE THE PIONEER SETTLER OF WHITESTOWN THE COMMERCE OF THE STATE OF NEW YORK OWES MVCH TO HIS ENERGY AND ABILITY IN THE CONSTRVCTION OF HER RAILROADS
Y
CANVASS WHITE
SEPTEMBER
EIGHTH
DECEMBER
A CIVIL ENGINEER AND GRAND SON OF HVGH WHITE THE PIONEER SETTLER OF WHITESTOWN THE STATE OF NEW YORK OWES MVCH TO HIS ENERGY AND ABILITY IN THE CONSTRVCTION OF THE ERIE CANAL
W

TABLET TO WILLIAM CLARK YOUNG AND CANVASS WHITE.

ERECTED BY THE ONEIDA HISTORICAL SOCIETY, UTICA, N. Y.

town. In order to maintain the supremacy of the whites among the Indians, it was necessary for him to accept the challenge of the Indian holding the championship among the Indian wrestlers. Mr. White grappled the Indian, tipped him, fell upon him, and as he weighed some 250 pounds, the blow took all the breath out of the Indian, and when he arose after the fall, he expressed the opinion that Hugh White was too heavy. The village authorities took advantage of the scene and adopted it as the emblem for the seal of the village, and it continues to be so used at the present day.

In the left-hand corner of the tablet, above the medallion, is an exact reproduction of the seal of the city of Utica, representing an Indian, and the words "Ya-nun-da-sis," meaning around the hill, as the city of Utica is located at the point where the Catskill hills from the south gradually melt into the valley of the Mohawk, and those of the Adirondacks rise on the other side, which places Utica "around the hills," as the Indians termed it.

The right-hand column contains an Egyptian emblematic figure with water lilies, indicative of the fact that Canvass White's work in life had to do with the control and management of water. The scroll giving the date of his birth and death is supported by a surveyor's chain, with its links. The middle column has an exact reproduction of the tripod and level used by Benjamin Wright in the survey of the Erie canal, the level having been purchased at 20 Holborn Viaduct, London, England, by Canvass White, while on his trip of inspection in the interest of the canal work. Above this is a cluster of shovels, pick-axes, squares and triangles necessary to the excavation of the work.

The left-hand tablet contains a bas-relief of William Clark Young, a first cousin of Canvass White, and also a grandson of Hugh White, the pioneer settler of Whitestown. The panel between the capitals of the left-hand and the central column contains an exact reproduction of the first railroad train as used in 1831 at the opening of the railroad between Albany and Schenectady. The right-hand corner of the tablet has an exact reproduction of the seal of the State of New York, and the left-hand tablet an exact reproduction of the seal of the Oneida Historical Society at Utica. The left-hand column is ornamented with ties and rails of a railroad, using the wheels on the original train as shown above as rosettes. Mr. Young was the inventor of the modern wooden railroad ties which made railroading practical. The scroll containing the dates of his birth and death is supported on the links of a surveyor's chain. Mr. Young was a graduate of West Point, and lived long enough to become the oldest living graduate.

These two men, grandsons of the original New England settler who settled in Whitestown in June, 1784, were first cousins to each other. One was engaged in the solution of the problem of cheap transportation by water, and the other in the solution of the problem of cheap transportation by steam.

ELMORE H. WALKER.

AN APPRECIATION OF THE WORK OF ELMORE H. WALKER

"THE GREAT TABULATOR"

By GEORGE ALFRED STRINGER

Among those who have been prominent in Buffalo in years gone by in working for an enlarged canal and better transportation facilities thereon, the name and labors of Elmore H. Walker should not be overlooked.

For many years associated, at different times, with the leading dailies of the city as commercial editor, and for a long period up to 1869 solely with the Buffalo *Commercial Advertiser* in the same position, Mr. Walker, by his broad views, accurate judgment and an intimate acquaintance with figures, won for himself an enviable place not only in this community, but elsewhere, and was widely known as "the Great Tabulator." Commerce to him was an inspiration, and he proved himself a successful interpreter of its laws; so much so, that in his special department he was almost without an equal.

For twenty years prior to the date mentioned above, he was identified with the commerce of this important shipping point, and used his influence and his pen on very many occasions during that long period in behalf of the Erie canal.

In June, 1869, Mr. Walker wrote a long editorial for the *Commercial Advertiser* upon that portion of Governor Hoffman's message relating to the canal. Let me quote from the message first:

"The Erie canal by its geographical position and physical characteristics, has a special and important relation to the commerce

and business not only of our own State, but of the populous and rapidly growing communities of the great Northwest.

"Connecting the Hudson with the lakes, it is an indispensable link in a chain of water communication which continues to be of great power and value notwithstanding the improvements in the methods of land transportation which are characteristic of our times.

"This work is a trust for the people of the State, whose enterprise and capital have created it; but it is to be administered in a spirit of liberality towards those great populations whose growth has been fostered by it, and whose welfare it continues to affect. To maintain it in a condition of efficiency, and to improve it in a practical manner, as the necessities of business may from time to time demand, is our interest as proprietors, and our policy with reference to the commerce of the State and country.

"To protect it from embarrassment, arising out of improvident expenditures, ill-considered changes in its structure, or charges upon its revenues, growing out of other undertakings, is an obligation clearly resting upon us. The general plan of its construction and its adaptation to the business for which it was intended, provide a convenient, easy, and an economical means of transportation. The complaints that have arisen, some of which have been made the occasion of demands for fundamental changes in the work, have been provoked mainly by failures in the administration."

Mr. Walker alluded to the first part of the quotation as taking "a broad, comprehensive and statesmanlike view of the Erie canal in its geographical and commercial relations to this State and its metropolis, as well as the great northwest"; but when he says of the Erie canal, "to protect it from ill-considered changes in its structure, or charges upon its revenue growing out of other undertakings, is an obligation clearly resting upon us"; also referring to the other and concluding portion of the last paragraph, Mr. Walker said that he thought the Governor "fails fully to comprehend the situation." Also, that the foregoing quotations from his message "show very clearly that he thinks no enlargement of the Erie canal is necessary. That it has now in its structure ample capacity and sufficient cheapness to secure and accommodate the wants of trade between the seaboard and the northwestern states for an indefinite

period. . . . Wise statesmanship looks to the future and its wants, as well as to the past and the present."

Mr. Walker then goes on to speak of the immense area of the northwestern states, "more than 600,000 square miles"; of their "population of twelve millions, which is being augmented in a decennial ratio of sixty-five per cent."; of their cereal product; of their railways completed and in operation; of their "2000 miles of canal, including 700 miles of slack water navigation, besides a lake and river tonnage, nearly equal to that of the entire ocean commerce of the United States." He takes up the surplus cereals moved eastward, the coal tonnage, as well as the aggregate annual tonnage of the canal, rival routes reaching out to secure the trade of the northwestern states; of the system of barge transportation on the Mississippi with capacious grain elevators at St. Paul, Dubuque, St. Louis, and New Orleans, for handling grain in bulk, claiming that it "bids fair to rival in cheapness the lake and canal route with the present capacity of the Erie canal." He also spoke of the efforts of the Canadian Government to secure a large share of this vast trade, and substantially closes his article by eloquently saying:

"What interest in the State is of greater magnitude than the Erie canal, and its present and future commerce? What interest in the State stands in greater need of protection and fostering care? It needs not only present care, but a care for the future, to the end that the augmenting commerce and trade between the East and the great Northwest shall be secured and retained to the Erie canal. The foreign commerce of New York is in a great measure dependent upon securing the trade of the lake and Mississippi valley states through the Erie canal. The comparative statistics of the grain trade of Chicago and New York, the augmenting coal and lumber trade, the rapidly-increasing agricultural productions of the West, and the strong competition of rival routes, ought to be a sufficient warning and admonition, to the State of New York, of the imperative necessity of immediately providing for the increased traffic by means of enlarged locks for the passage of 600-ton boats, and cheaper transportation facilities. By this means only can we invite and secure the trade of the Northwestern states to the Erie canal, and turn through it the rich tide of commerce which, like the blood flowing through the great artery from the heart of the

"The British are so confident that they will wrest the trade of the West from us, that they have nearly completed works that will cost more than thirty millions of dollars. This is in addition to about twenty millions spent in early improvements, making about fifty millions paid out to gain the great prize they seek, the control of the carrying trade from the heart of our country to the markets of the world. They do not fear our railroads. While we are neglecting our water-routes they spare no cost to perfect theirs. This is the greatest danger that threatens our commerce. It concerns all classes of citizens, and all methods of transportation."

Mr. Walker then shows in view of this great danger, that the way to save the commerce New York has so long held, is to improve our waterway, and that the "tide-waters of the Hudson river, and the natural channels between the Great Lakes shall have the consideration which is due to them, as the great channels of commerce of our country."

These extracts have been taken from Mr. Walker's writings in order to show how deeply he was concerned for many long years in the vital necessity which was so apparent—not only to him but to other far-sighted men—in preserving and enlarging the Erie canal if the commerce of the State was to be retained. It means prosperity to all classes of our citizens. For, as Mr. Walker says in another place, "not only the buyer and seller, but all those doing business within the borders of the State are benefited by the success of our canals, those residing in the country as well as in the city. With the price of his grain the western farmer buys goods manufactured in the East. The market of New York City gives value to property throughout this State that without it would be of comparatively little worth."

After being with the Produce Exchange for fifteen years, Mr. Walker resigned to become attached to *Bradstreet's*, the well known commercial and financial newspaper published at New York City. After this term of service expired Mr. Walker retired from active life, and died in 1891.

This brief sketch of his labors in behalf of the commerce of this State, and of the Erie canal in particular, is due to one who in his day was a well-known Buffalonian, and labored long and earnestly for the project that is now in process of fulfilment.

GEORGE S. HAZARD.

President, Buffalo Board of Trade, 1856, 1857, 1862, 1863, 1864.
President, Buffalo Historical Society, 1890, 1892.

GEORGE S. HAZARD: A TRIBUTE

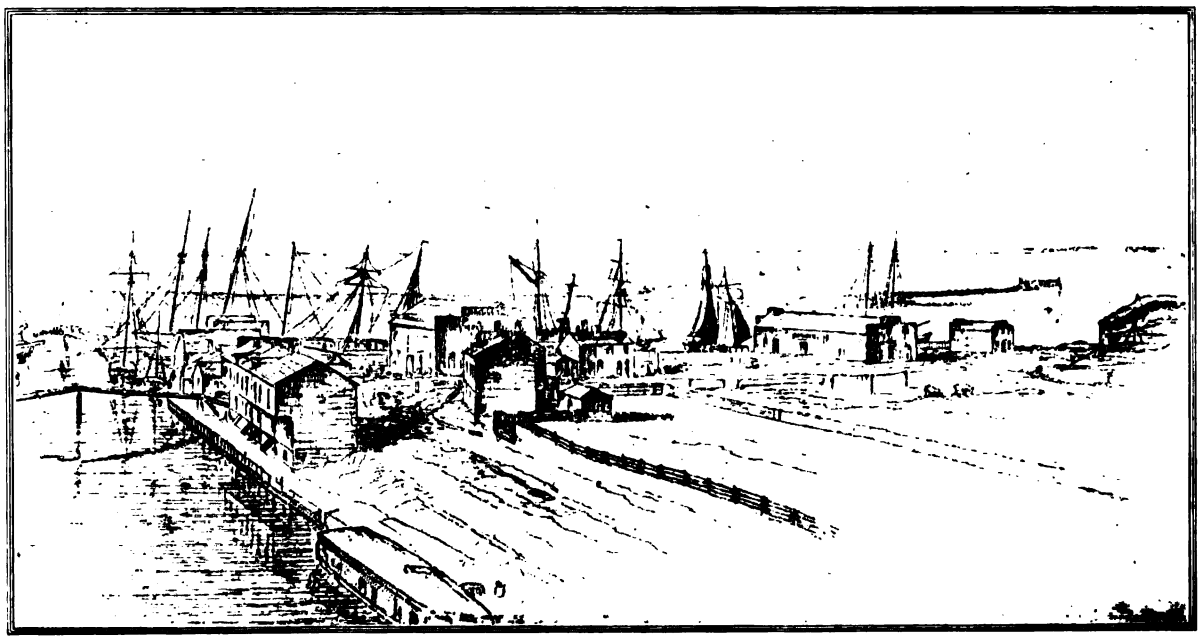
By GEORGE ALFRED STRINGER

Since that memorable date when the great internal improvement of our State, the Erie canal, was completed and opened for business, very many Buffalonians, at different periods, have been deeply interested in the great waterway by which the Queen City of the Lakes has direct communication and large transportation facilities with the financial and commercial center of our country, New York.

Perhaps there are none among the number whose memory our citizens delight to honor more than that of our late co-worker and associate, George Starr Hazard, whose interest in everything pertaining to the city of his adoption was continuous and unwearying.

During the long period in which Mr. Hazard was actively engaged in the grain commission business on what was known in his time as Central Wharf, he realized, as few did, that in order to retain the immense western trade mainly within this State, the improvement and enlargement of the Erie canal was of vital necessity, especially in view of the efforts rival routes were making to divert a large portion of this trade, which, if successful, would be detrimental to our commercial interests generally, and to Buffalo in particular.

Mr. Hazard had steadily and constantly in view the growth and prosperity of the city of Buffalo, and that this city possessed commercial advantages of a high order derived from its favorable relative position with so many points, and the ready means of distribution by lake, canal, and railroad. Buffalo is the great depot of supplies, without limit, both in breadstuffs, provisions, coal, iron ore, and



THE HARBOR OF BUFFALO IN 1827.

From a Sketch by Capt. Basil Hall of the British Navy. No Better Picture is Known, Showing the Harbor at this Period. At the Left is Seen the Terminus of the Canal, Where it Entered Buffalo River.

RECOLLECTIONS OF THE
EARLY FORWARDING TRADE
ON THE LAKES AND CANAL

By HON. LEWIS F. ALLEN[1]

The recent death of George Coit, Esq., on the 9th May ulto.[2] concludes the lives of those prominently engaged in the early forwarding business of Buffalo Creek. Antecedent to the War of 1812, and down to the year 1825, the noted firm of Porter, Barton & Co., by a lease from the State of New York, of the portage around Niagara Falls by a seven miles wagon route, and boats on the river above, monopolized the carrying trade between Lewiston and Black Rock, thus forming the connecting link between Lakes Ontario and Erie. This firm was composed of Augustus Porter of Niagara Falls, Benjamin Barton of Lewiston, and Peter B. Porter of Black Rock. The late Sheldon Thompson—then settled, in the year 1815, at Black Rock; his brother, Harry Thompson, settled there in 1818; James L. Barton (son of Benjamin Barton), who came there from Lewiston in 1816, and John L. Kimberly, about the same time, made up the firm of S. Thompson & Co. at that place. They owned vessels, and established a warehouse for forwarding goods on the river and Lake Erie, and also received, and sent goods by wagons between Black Rock and Albany.

Charles Townsend and George Coit, under the firm of Townsend & Coit, on Buffalo Creek, were participants, to

1. Read before the Buffalo Historical Society, June 13, 1865. Now first published.

2. Mr. Coit died May 9, 1865.

some extent—although not directly interested in the firm of Porter, Barton & Co.—in their carrying trade. They also received and forwarded goods by wagons between Albany and Buffalo, and thence on Lake Erie by their vessels. Samuel Wilkeson, and Jonathan Sidway, to some extent, were engaged in forwarding goods on the lake, Sidway being chiefly engaged in the salt trade, then a considerable business between Salt Point, Buffalo, Erie, in Pennsylvania, Cleveland and Detroit.

The Erie canal being completed in the year 1825, and making a direct water communication between Lake Erie and the Hudson river, had cut off the Oswego and Niagara river route of transportation, and terminated the establishment of Porter, Barton & Co. with their wagoning over the portage, and the batteau navigation between the Schlosser landing above the Falls and Black Rock.

On the Hudson river two towns, rivals for the commerce of the canal—Troy and Albany—opened the forwarding business. At its western termini Black Rock and Buffalo aspired in competition for it. Thompson & Co. at one, and Townsend & Coit at the other place were the chief pioneers of the trade, and both combined, with the Griffiths, of Troy, formed the "Troy and Erie Line" of canal boats, running from Lake Erie to the Hudson, the first, and for many years the most extensive line between the two waters. After this soon followed the "Pilot Line," the "Merchants Line" and other combinations of the different establishments connected with the canal and lake commerce.

On the completion of the canal, other parties vigorously commenced the forwarding business on the lakes and canal. At Buffalo Creek, Johnson & Wilkeson; a firm composed of Ebenezer Johnson and Samuel Wilkeson. Asa B. Meech, now of this city, who came to Buffalo in the year 1824, in connection with Hiram Pratt, an older resident, built a warehouse on the creek in that year, and under the firm style of Pratt & Meech commenced the business. John Scott established himself as a forwarder in the year 1825. Thaddeus Joy and George B. Webster, under the firm name of Joy & Webster, commenced forwarding in 1826; and

Peter Curtiss and Henry Root, the firm of Curtiss & Root, began the same year and built warehouses on the creek.

The forwarding business of Black Rock, however, was of short duration. The damage to the pier at that place in the summer of 1826 interfered with it to some extent, and the culminating disasters to it by carrying a part of it away by flood and ice in the winter of 1826-'27 prevented the entrance of vessels into the harbor; and Sheldon Thompson & Co. came to Buffalo Creek in 1827, and went into the warehouse of Townsend & Coit temporarily, for the season. Colonel Barton, having previously left the firm of Thompson & Co., followed, the same year, and became a partner with Johnson & Wilkeson. These enumerated firms were comprised of enterprising, energetic men who grappled with formidable difficulties in the commencement of their new undertakings, but all succeeded in establishing on a permanent basis the business they founded. It was a day of small things then—a few thousand tons annually, to millions now—but the commencement of grander things to come. Buffalo, in 1827, had barely 4000 population.

Of all these energetic business men, active in 1827, only four, the venerable Harry Thompson, James L. Barton, John L. Kimberly, and Asa B. Meech, still hale and robust among our most reputed citizens, survive. Capt. James Sloan, the chief batteau navigator of those early days on the river, also remains the sole survivor of that hardy class of men;[1] and Black Rock and Buffalo, once rival villages in the carrying trade and commerce of the great West, now consolidated in territory and government, and tied by mutual interests, form one populous and growing city.

---

1. Harry Thompson died Oct. 27, 1873; Jas. L. Barton, Oct. 6, 1869; John L. Kimberly, Dec. 21, 1884; Asa B. Meech, Jan. 4, 1869; and Capt. James Sloan, March 5, 1868.

NOTES ON THE

CANAL FORWARDING TRADE

By L. PORTER SMITH

My recollections of canal forwarding and boat building go back to the '40's. My birthplace, New London, Oneida County, N. Y., in the early days of canal traffic, was one of the most important points in the State for canal-boat building. My father, Solomon Porter Smith, a merchant of New London, early became interested in boat building. Hundreds of men who became prominent in canal matters came from New London and vicinity. Among them I recall Nathaniel Paige, Cyrus Peckham, Solomon Tuttle, Henry Patrick, Stephen Irons, Elijah P. Roberts, Amos A. Bissell, Charles Marcellus, and many others who built or ran boats.

At Frankfort many boats were also built. Senator McGowan had a dry-dock there and was largely interested in the canal business for many years. He was a great help to the canal men in their long fight for reduction of tolls. Samuel Morgan of Frankfort was prominent in canal business in the 50's and 60's. He later came to Buffalo and was for years connected with William Petrie in the forwarding business.

At Rome, also an important boat-building point in the early days, William Parker had a dry-dock. A line of boats was run from Rome to New York in connection with the Rome & Watertown railroad, and for a time did a flourishing business. The completion of this railroad greatly affected traffic on the canal. Before it was built, from New London, Rome and other places in Central New York, all

BOAT.	WHERE OWNED.	MASTER.
Christopher Columbus	Rochester	Hollis Daggett
New Haven	Rochester	Wm. W. Weed
Star	Albany	Levi Bennett
Eclipse	Albany	Drayton Bromley
Dunkirk	Black Rock	B. P. Peckham
Envoy	Rochester	Justin Gates
Ontario (packet)	Utica	Walter D. Smith
Connecticut	Rochester	Wm. Wyman
Farmer	Tonawanda	Elias Stone
Citizen	Albany	Melancthon C. Wetmore
Holland Purchase	Pendleton	Ithel Hart
Niagara (packet)	Utica	Joel Joslin
Mary	Rochester	James Hitchcox
Logan	Black Rock	John Martin
Portland	Buffalo	Ralph Woodruff
N. W. Haverly	Schenectady	S. O. French
Baltic	Buffalo	T. Capen
Chili	Rochester	Isaac Smith
Jerry	Clyde	J. W. Sober
Detroit	Rochester	John R. St. John
Bolivar	Albany	Harvey Cobb
Andrew Jackson	Salina	Wm. Aldrich
Buffalo	Rochester	Joel Cody
Patrick Henry	Troy	Chas. Miles
Ohio	Rochester	Ansel R. Cobb

Most frequent items of freight were whiskey, salt, fish, lumber, ashes, cordwood, staves, furniture. Packs of deer skins and furs were not unusual, and occasionally the invoice includes a tierce or keg of bear's-grease, packages of beeswax, and "mocoks" of maple sugar. No grain shipments appear.

CORPORATION OF THE
City of
New York
Dr. H. R. Stagg
to participate with them in the CELEBRATIONS on the Completion of
the ERIE CANAL,
GRAND CANAL Commenced 4th July 1817. Completed 26th October 1825.

INVITATION CARD ISSUED BY NEW YORK CITY FOR THE CANAL CELEBRATION, OCTOBER 26, 1825.

MEMENTOS OF

THE OPENING OF THE CANAL

Preserved in the archives of the Buffalo Historical Society are many letters and other documents relating to the early history of the Erie canal. The following, dealing chiefly with the opening ceremonies in Buffalo, are selected as containing data appropriate for publication in connection with the other papers of this volume.

BLACK ROCK INVITED TO BUFFALO.

The rival communities of Black Rock and Buffalo appointed committees to look after the local arrangements in connection with the opening of the canal, in October, 1825; but the Buffalo committee, headed by Judge Samuel Wilkeson, forestalled their neighbors in perfecting the plans, as witness the following communication[1]:

BUFFALO, Oct. 14, 1825.

GENTLEMEN: Your communication of this date has been recd. and in reply we have to inform you that the arrangements between the N. York and Albany Committees relative to the approaching celebration as published in the State paper of the 4th instant was early communicated, directing our immediate attention to the first recommendation of those Committees.

In pursuance of that recommendation the preparations contemplated, have been perfected, and publicly notified, previous to the receipt of your letter. You will therefore readily perceive the impracticability of our now making a new arrangement. We should however be highly gratified, and most cordially invite the citizens of your village to add to our committee such number as may be

1. The original document is preserved by the Buffalo Historical Society.

deemed suitable, to proceed with us in the Boat already prepared to pass on from this place for the purpose of participating in the general festivities of the occasion.

Very respectfully,

SAM'L WILKESON
THOMAS C. LOVE
THADDEUS JOY
DAVID BURT
HY RUTGERS STAGG

To Messrs.
SHELDON THOMPSON
ABSOLUM BULL &
H. C. VAN SCHAACK
Com. on behalf of the Citizens of B. Rock.

A CELEBRATION CONTRACT.[1]

ARTICLES OF AGREEMENT made & executed this twenty fifth day of October in the year one thousand eight hundred and twenty-five, Between Josiah Beardsley of the Village of Black Rock of the first part and James Mason & Lester Brace of the same place, being a committee appointed by the inhabitants of said Village of the second part.

Witnesseth, That the said Joseph Beardsley for and in consideration of the covenants & agreements hereinafter mentioned doth agree to & with the said parties of the second part to lease hire or let unto the said parties of the second part the Boat called the Boat Niagara for the purpose of taking said parties of the second part & others whom they may associate with themselves to the City of New York or such other place as may be designated for the celebrating of the Grand Erie Canal. And the said Josiah further agrees to furnish the said Boat with a Captain Two hands & a Cook and tow said Boat as far as Lock Port, the said parties of the second part To have hold use and control of said Boat for the term of *Three weeks* from the date of these presents & then return said Boat to said Josiah at Black Rock in as good order as she now is necessary wear & decay & injuries occasioned by the carelessness or negligence of the Captain or hands excepted yielding & paying therefor unto the said Josiah or his executors or assigns the sum of *one* hundred & fifteen Dollars payable on or before the expiration of said Term of Three weeks.

1. Original document preserved by the Buffalo Historical Society.

And the said James Mason & Lester Brace for themselves their & each of their executors & administrators jointly & severally do covenant & agree to & with the said Josiah Beardsley his executors administrators & assigns to pay the said Josiah Beardsley or his assigns the said sum of *one hundred & fifteen Dollars* for the use or hire of said Boat for the term of three weeks for the purposes above mentioned and further that they will furnish at their own charge provisions and other necessaries for said Captain hands & cooks during said term & also will provide the necessary team and utensils for conveying said Boat from the Village of Lock Port to the City of New York or other port of destination & Back to the Village of Black Rock within the said term of *three weeks* at their own charge & expense.

And the said parties of the second part do further covenant & agree to and with the said party of the first part that they will return said Boat to the Village of Black Rock within the said term of Three Weeks in as good order as She now is necessary wear & decay & injuries occasioned by the carelessness or negligence of the Captain or hands excepted.

In Witness whereof we have hereunto set our hands & seals the date first above written.

J. BEARDSLEY
LESTER BRACE
JAS. MASON

In presence of
C. L. HITCHCOCK

HOW BUFFALO DUG THE CANAL.

In a large collection of manuscripts of William Hodge[1] in the possession of the Buffalo Historical School, is found an account of the beginning of canal construction in Buffalo. Mr. Hodge's narrative, somewhat condensed, here follows:

"The eastern portion of the Erie canal was begun in 1817. Where its terminus should be was not settled until the winter of 1822. The people of Black Rock expected that village to be chosen as the terminus; the people of Buffalo wished to have it at Big Buffalo creek. The con-

1. Died April 24, 1887.

troversy was hotly waged. Several surveys were made with a view to carrying the canal through to Buffalo. One survey was run about one hundred rods east of and nearly parallel to the main road leading from the Cold Spring to the village of Buffalo. [This is now our Main Street.] The great objection to that route was the deep cutting which would be required through the sand hill, or, as we then called it 'Walden's Hill,' where now is High Street. Several other surveys were made through what is now Buffalo. At times the people of Black Rock would get some word favorable to their locality, when Major Frazer of Black Rock and others with him would get out the big gun and fire a salute with great rejoicing; then again, word would come favorable to the termination at Buffalo, and the Buffalonians would fire their cannon. After several months of controversy, it was finally settled that the canal was to come to Buffalo creek. The people of Black Rock were to have the privilege of seeing the canal boats pass by their village, for it was also determined to dam up a part of the Niagara river from the foot of Squaw island to Sandytown or Bird island, thus making a waterway which was a substitute for a part of the canal.

"The contract for excavating the west end of the canal from Little Buffalo creek down half way or so to Sandytown was given, I think, to Major John G. Camp. Word was given out and also published in our Buffalo newspaper that on a certain day ground would be broken for Clinton's big ditch. All were invited to come into the village from the surrounding country to take part in helping the great work. Many at that time declared it was an impossible undertaking and that it would never be finished. Many said they would ask no longer lease of life than to see the canal completed. It was finished within a few years after its commencement and many of those doubters lived to see it in successful operation for many years.

"Those who had ox teams were asked to drive them in to plow. My father owned two yoke of oxen. I yoked and hitched them on with the oxen of Col. W. W. Chapin, Marshall Smith, William Holt and some others, who came

along from Buffalo Plains, and we drove into the village with a team of some ten or twelve yoke of oxen. We all met on the boggy flat, about where Erie Street now crosses the canal. There was a great gathering of people. We arranged our teams and hitched to one of the largest plows we had. When all was ready for breaking ground, the word was given to 'go lang Buck,' and with our big plow and strong team we turned up the black mold and sod within certain stakes which marked the dimensions of the canal.[1]

"Those were not the days of strict temperance in Western New York, nor was total abstinence so necessary as in these later years. Our whiskey then was a pure article, made from rye, without adulteration, drugging or poison. All of our house and barn raisings, logging and husking bees, in fact all rejoicing and festal assemblies were accompanied with a good supply of ardent drink in the shape of pure whiskey, milk punch or eggnog. On this occasion it was simply pure whiskey that was provided bountifully and in true western style. Along the line of the canal, at convenient distances, was to be found a barrel of whiskey, pure old rye, with part of the head cut out and a tin dipper lying by and all were expected to help themselves. It was free for all. This was the only refreshment furnished by those who had charge of the first canal work in the village of Buffalo.

"Major Camp had not at the beginning of the work procured wheelbarrows and plank for the use of the diggers. As a substitute, he had some scores of hand-carts or hand-barrows, but we who used them that day called them soul carts, it being such hard work to use them. They consisted of two small poles, some six or eight feet in length, laid parallel to each other, two or two and a half feet apart, with boards nailed across the middle. On these the earth and sods were piled and then with one man at each end and between the poles they were carried out beyond the stakes.

1. Although Mr. Hodge does not fix the date, it is learned from other records that the scene he describes, the first digging on the canal in Buffalo, was done near the present Commercial-street bridge, Aug. 9, 1823.

All took a hand in carrying earth to help make the big ditch, from the honored judge down to the schoolboy urchin.

"It was a day of great rejoicing for the citizens of Buffalo, for the accomplishment of the work promised to them a market for their grain and provisions. Before the canal was opened, we had no cash market for anything, and our surplus grain lay in our granaries year after year unsold."

A LOST WORK OF ART.

The following facts were communicated by R. W. Haskins to the Buffalo *Express*, in which paper they were printed, Oct. 31, 1866:

In the year 1825—a very remote history of our young city—was completed the Erie canal; and on the 26th day of October, in that year, was begun, in this then village, the grand celebration of that event, which was carried through the entire length of that great work, and finally terminated at the city of New York.

The canal boat Seneca Chief was selected by the committee of arrangements as the first boat to pass through the entire length of the Erie canal. She was to start from Buffalo and proceed to New York, by way of the Erie canal and the Hudson river. This boat was here to receive Governor Clinton with some other State officials, and a Buffalo committee, as "through passengers," to which other committees were to be added from different towns along the route.

As the origin of this affair was to be at Buffalo, there was no want of anxiety among the people of our little hamlet to add to the interest of the coming occasion. The committee of arrangements procured an original ode, written to music, which was sung during the ceremonies of the occasion. Although this ode was printed with the proceedings, yet the author's name did not appear, nor was the origin of the production generally known. It was, however, written by a journeyman mechanic, who was in my employ at that time. Governor Clinton's great services in carrying forward to completion the Erie canal were everywhere acknowledged, and a young artist by the name of Catlin, who then had rooms here, suggested to a few associates the preparation of a pencil compliment to that statesman, to be hung in the cabin of the Seneca Chief. The artist showed his friends a sketch of his inception, and it was so well

received that he was urged to complete it without change. The piece was finished in oil, and it was agreed by the few in the secret, that it should be concealed until the occasion, and then secretly conveyed to the boat, and suspended in the cabin at the moment when the Governor, escorted by the committee, should approach the boat to embark.

I was at that time editing the Buffalo *Journal*, and on the day in question, I was early abroad, collecting materials from which to produce a connected narrative of the fete, for publication. At the hanging of the picture I was present; and I remained to witness the effect upon the Governor and his attendants. The surprise was a complete success, the pleasure of which was greatly heightened by the chastely classic form under which the compliment was conveyed.

When the boat left for its destination, which was at 10 o'clock a. m., I repaired to the *Journal* office and prepared from my notes the details of the occasion, which were immediately issued in an extra of that paper. In that extra, I gave the following description of the picture in question:

"It was a classic, emblematical production of the pencil. The piece on the extreme left, exhibited a figure of Hercules, in a sitting posture leaning upon his favorite club, and resting from the severe labor just completed. The centre shows a section of the canal, with a lock; and in the foreground is a full length figure of Governor Clinton, in Roman costume. He is supposed to have just flung open the lock gate, and with the right hand extended (the arm being bare), seems in the act of inviting Neptune, who appears upon the water, to pass through and take possession of the watery regions which the canal has attached to his former dominions. The god of the sea is up in the right of the piece and stands erect in his chariot of shell, which is drawn by sea horses, holding his trident, and in the act of recoiling with his body, as if confounded by the fact disclosed at the opening of the lock. Naiades are sporting around the sea-horses in the water, who, as well as the horses themselves, seem hesitating as if half afraid they were about to invade forbidden regions, not their own."

Such was the picture which left Buffalo forty-one years ago the present month upon the Seneca Chief, and it has never returned. We repeat, then, the question here, namely: what has become of it? I had long supposed it was in the Clinton family, but our present Judge Clinton informs us that he has neither seen, nor ever before heard of it. Is it lost, then, or destroyed, or now in the accidental keeping of some one to whom its origin, its purpose—in a word, its history—is unknown? If in existence, it seemingly belongs, of right, to Buffalo. Both its inception and execution were here; and these were designed as covering the expression of our grateful people to a public benefactor, for the aid he had ren-

dered in commercially connecting them with realms then most important to their prosperity and happiness. If found, then, this early landmark of our settlement, it appears to me should be procured and made a part of the archives of our Historical Society, with a full history of its origin and its purpose.

R. W. HASKINS.

BUFFALO, Oct. 31, 1866.

THE ERIE CANAL GUN-TELEGRAPH.

The following communication is now first published:

BUFFALO, April 7th, 1863.

GUY H. SALISBURY, *Esq.*,
Secretary Buffalo Historical Society.

DEAR SIR: In commemoration of that event, the completion of the Erie canal, on the 26th day of October, 1825, leaden medals bearing appropriate devices and inscription were struck off and distributed throughout the State. Whether these were procured by the State authorities or by those of the city of New York, I do not recollect, but I am inclined to think, that it was by the latter.

One of these medals is now in my possession, and being desirous of promoting the objects of the Buffalo Historical Society, I herewith present it, to be placed among its memorials of the past.

The pageant, ceremonies, and rejoicings which took place on that and several subsequent days, from the Lakes to the Atlantic are matters of history, but there are some things connected with that event, of which so far as I know, no suitable record has been made, and deeming this a suitable occasion, I will jot them down here, that the memory of them may be preserved in the archives of the society. I refer to the telegraph which was improvised for that occasion, and which was so effectual in announcing to the waiting multitude from one extremity of the State to the other, the moment that the fleet of canal boats started from Buffalo on their voyage to the seaboard, there to mingle the waters of the Lakes, with those of Old Ocean.

The material of which that telegraph was comprised and the manner of its application to the purpose was as follows:

Some time during the winter of 1825, the Government of the United States resolved to break up the naval depot at Presque Isle (Erie, Pa.), and to that end sold at public auction, such of the public property, consisting of anchors, chains, cordage, etc., as would

not bear the expense of removal, together with the hulls of the public vessels, then lying sunk somewhere in the bay.

These were the vessels that composed Commodore Perry's fleet on Lake Erie, and those captured by him from the enemy, in his celebrated naval victory in September, 1813.

The ordnance stores and guns were reserved for removal to the naval station at New York, and a contract was made with Dows, Meech & Carey, proprietors of the Washington Line, on the Erie canal, a forwarding concern, of which the late Hiram Pratt and Asa M. Meech, under the firm of Pratt & Meech, were the agents at Buffalo, to transport these guns and ordnance stores from Erie to New York. Pratt & Meech were the proprietors of a line of vessels on the lake, running in connection with the boats of the Washington Line on the canal.

The arrangement was for Pratt & Meech to receive these articles on board their vessels at Erie, convey them to Buffalo, then ship them on board canal-boats to be delivered at the navy yard, Brooklyn, some time during the summer of that year, when there was much less "forwarding business," than during the spring and fall.

Before this contract with the Government was fulfilled on the part of the Washington Line, the idea was conceived of making use of the guns while *en route,* as a telegraph or signals, to be used during the approaching canal celebration, the note of preparation for which had been heard for some months, and to that end the time for the delivery of the guns was extended to suit the exigencies of the case.

In accordance with this design they were brought to Buffalo. One of them, a thirty-two pounder, was planted on the Terrace in this village (now city), another at Tonawanda, another at Pendleton, another at Lockport, and so on at intervals of from ten to fifteen miles, depending upon the caliber of the gun, all along to New York.

On the morning of the memorable 26th of October, 1825, these guns were loaded without stint of powder, and the booming of the thirty-two pounder on the Terrace announced the departure of the fleet to the next one below, which belching forth its thunder tones sent the joyful news on the wings of the wind towards the seaboard, where, flying on from gun to gun, it arrived in one hour and twenty minutes. When the last gun stationed on the Battery in New York, had given its note of warning, the signal was repeated back along the line to its starting-point, so that the anxious thousands might know of the success of this novel first attempt at telegraphing from the Lakes to the Atlantic. The sound of the last

gun in the return signals died away over the waters of the lake, in less than three hours from the firing of the first.

Respectfully yours,

ORLANDO ALLEN.

P. S.—I was a clerk for Pratt & Meech, and took an active part in some of these preparations, consequently they are more firmly impressed upon my mind than they would have been probably had I been a mere looker-on. A.

PROCEEDINGS

OF THE

BUFFALO HISTORICAL SOCIETY

NORTH ENTRANCE, BUFFALO HISTORICAL SOCIETY BUILDING.

SHOWING THE BRONZE DOORS AND ANTIQUE ITALIAN BRONZE CANDELABRA, GIFTS OF MR. ANDREW LANGDON.

APPENDIX A

PROCEEDINGS OF THE
BUFFALO HISTORICAL SOCIETY

"BRONZE WORK IN ART AND HISTORY."

On the evening of December 4, 1906, at a reception given for the members of the Historical Society, President Langdon presented to the institution a pair of antique bronze candelabra, accompanying the gift with the following remarks:

Ladies and Gentlemen—I take this opportunity again to welcome you to our building, and to express the hope that the ensuing year may prove the pleasantest and most fruitful in the career of the Historical Society.

I shall not detain you long, but wish, briefly, to call your attention to an interesting form of art, by means of which a great deal of history is embodied and preserved.

To find a starting point it is usually necessary to go backward. The first painting I ever bought was a little gem but a few inches in size. Larger and better canvases have since been added, but the day of small beginnings is not despised—the little Kenset is as much prized today as when first installed among my lares and penates. It was good seed and has borne good fruit.

Many years ago there was received from cherished friends a wedding gift of a graceful figure of a young girl with a garland of flowers. That was a seed in bronze which has been fruitful in my personal life, with much resulting pleasure, whether derived from household trinkets or from observation of the great works of master minds, like Ghiberti's wonderful doors in the Baptistery at Florence, which were declared by Michael Angelo worthy to serve as the gates of Paradise.

My theme, then, for a very few minutes, is the bronzemaker's art. Already, although no special effort has ever been made to collect articles in bronze for its museum, our institution has several notable articles in this class. Among the objects gathered in the Orient some years ago by that devoted friend of our society, Dr. Joseph C. Greene, are a number of bronze utensils and tools, from ancient Egyptian and Assyrian tombs. The bronzemaker's art is one of the oldest known to men. In another case in our collections, you can see several excellent and really precious examples of fine bronze work, especially a large dish or plaque, and graceful ewers and vases, from the old Etruscan tombs of northern Italy. These came to us from another friend, Dr. Wm. C. Barrett. We have also some examples of early Japanese bronze.

In contrast with these antiques, is the bronze and marble bust of Nero which stands in the entrance hall, and which well illustrates a form of work in which the Italians of the later Middle Ages attained great excellence. That bronze is a prized medium of art expression in our own day, is well attested by numerous excellent examples close at hand. Two artistic wall-tablets in the central court of this building illustrate the fitness and beauty of bronze for memorial uses. The bronze doors which opened to admit us this evening combine utility, security and art—their sculptor, you may recall, being Mr. R. Hinton Perry. The superb bronze statue of Lincoln, which is one of our chief possessions, is the work of the distinguished sculptor, Charles R. Niehaus; while in the statue of Red Jacket in Forest Lawn, and the replica of Michael Angelo's David in the Park, near this building, we have two examples, of great educational value, of the service which bronze may render in behalf of both history and art.

I have long found a special pleasure in this form of art; a form which is well nigh as old as art itself, and the notable examples of which in every capital of Europe, add so much to the traveler's enjoyment. Who for instance, that has stood before St. Mark's in Venice and contemplated those wonderful bronze horses over the principal entrance, has not seen in them the very embodiment of ages of history and romance! As to their origin, even the experts in these matters cannot agree. Originally supposed to be the work of Lysippus, and to have been brought from Alexandria to Rome by Augustus, they are now said by certain investigators to belong to the age of Nero—say A. D. 37. They stood successively upon the triumphal arches of Nero, Domitian, Trajan and Constantine in Rome; were afterwards carried by Constantine to Constantinople, only to be brought back to Venice in 1204. The great despoiler—

Napoleon—in 1797 carried them off to Paris and placed them on the Arc du Carrousal, whence, happily, they were returned to Venice in 1815.

My allusion to Napoleon reminds me of a weird and haunting picture in the Wirz Gallery in Brussels. It depicts "Napoleon in Hell." He is the central figure of the painting, surrounded by his victims—wretches all, minus arms and legs, with bandaged heads, with crutches and stubs of limbs, and with hatred in every face. In their midst is seen Napoleon, with countenance as immobile and unsympathetic as in the bronze of the bust before you.[1]

Pardon this digression—and permit another, for the associations of Napoleon and bronze come together in my mind. One of the curious sights today in Moscow is some 800 bronze cannon, left by Napoleon on Russian battlefields, now piled up like cord-wood in the Kremlin.

Russia itself is the home of much wonderful work in bronze, both ancient and modern. In some forms of bronze art work no country excels her today. Every visitor to that country has memories of the splendid bronze doors of St. Isaac's; and every schoolboy has read of the great bell of Moscow, the monarch of all bells, weighing 443,732 pounds, twenty-one feet four inches high, twenty-two feet in diameter and sixty-seven in circumference; twenty-two inches thick, with a value of metal stated at more than $300,000, and holding as it stands forty people, who enter through a break in the side. It is perhaps the mightiest fabrication in bronze; for although two or three of the great bronze Buddhas of Japan may be larger, they probably contain less metal than this gigantic bell, which was cast in 1736.

The whole subject of bells might be entered upon in connection with our consideration of bronze work, and would be found full of curious history. Whereas the earlier bells were comparatively small, there developed after the thirteenth century an evident emulation to achieve large results. Yet even here China, foremost in so many things in early ages, was making great bronze bells before they were attempted in Europe. I instance the celebrated seven bronze bells of Pekin, each weighing 120,000 pounds. Burmah, too, has many enormous bells, which surpass those of other countries in their agreeable tone. In Europe, from 1448, when the eleven-ton bell of Cologne was cast, down to 1882, when a seventeen and a half ton bell for St. Paul's, London, was successfully turned out, many of the European capitals and cathedrals have

1. A bronze bust of Napoleon, not belonging to the Historical Society, adorned the speakers' stand on this occasion.

come into possession of great bells, weighing from six to eighty tons. Moscow has four huge bells besides the 193-ton monarch already referred to. Perhaps there is no bell on earth more famous than the Big Ben of Westminster tower, made in 1856 and weighing fifteen and a half tons. The largest bell on the American continent, it is believed, is in the church of Notre Dame at Montreal. This was cast in 1847 and weighs thirteen and a half tons.

But I must not be led away into a consideration of bells; for the subject, I confess, though a vast one, is attractive alike to students of music, of art and of history.

How many parts in the world's history bronze has played! Now the reliance of a Napoleon in the conquest of nations; now the medium through which a great artist records his inspiration; again the favorite and most enduring substance for works of simple utility; or still again, put to beautiful service for the soul life of mankind. The mellow boom of many an ancient bronze temple-bell has been heard throughout Buddhist lands for centuries.

These are merely some of the associations of bronze with life and art.

Among the ancient Greeks, Romans and Egyptians, the manufacture of bronze articles was very extensively carried on. Their taste for statuary in this material was cultivated to a degree not attained by the moderns. The wealth of some cities was estimated by the number of their statues. In Athens alone no less than 3000 statues have been found, and in Rhodes, Olympia and Delphi many more. The famous colossuses were cast of this alloy. The names of many of the ancient artists are still celebrated, and their groups of statuary continue to be our models. The alloy was employed by them for purposes to which we apply the harder metals, as in some periods for their arms and armor, medals, and even their surgical instruments, a set of which was discovered at Pompeii. By them it was regarded as a sacred metal, and endowed with mysterious powers of driving away evil spirits. The laws were inscribed on tables of bronze, and upon bronze coins alone were placed the words *"moneta sacra."* The Phoenicians were the first known workers of it; they made it into plates, which were nailed together; and they also cast it solid, and cored. The Egyptians appear to have had the art of hardening it; as a chisel of bronze was found in one of their quarries, which had apparently been used for cutting porphyry, the marks of the chisel, and trace of the metal being left in the stone.

Long before the days of the Egyptians and Phoenicians, archaeologists tell us there was a Bronze Age, a period in the evolution

of primitive man between the Stone Age and the Iron Age. The use of stone for weapons and utensils naturally preceded that of the metals; but by degrees, as deposits of copper and other metals were found near the surface of the earth, and as man learned to smelt and make alloys, so the use of several metals, in various proportions, came gradually to supersede the more primitive reliance on stone. This period in human history we call the Bronze Age. Of course, it was not a sharply-defined term of years, but like everything else in nature and in life, was a gradual growth, passing by degrees into a new order in which the use of copper alloys declined and the more serviceable iron took its place; and thus the Bronze Age was succeeded by the Iron Age, which ushered in the history of civilized man.

But, as the few relics attributed to these remote days, now cherished in museums, testify, the earliest products in bronze belonged to the realm of the useful, rather than to that of the beautiful. In other words, the things of the Bronze Age,—which in Europe is approximately placed between 2000 and 1800 B. C., belong to Archaeology and not to Art, which is our special theme.

As one studies the oldest bronzes now preserved in museums, he soon learns to trace the development of art forms. The Phoenician and the Greek carried to Italy and the south of Spain a taste and a love for the beautiful which left its impress upon the work of all peoples who came after them. Italy in particular was the inheritor of the world's best art impulses; and thus it came about that with the revival of learning and the arts, towards the end of what we term the Dark Ages, Italy was the world's art center, as Greece had been in the ancient days.

In many aspects, the acme of Italian art was reached with the rise of the Medici family, prominent in the affairs of state, and as patrons of letters and art. In this period, marked by Medici ascendency, was created much of Italy's best sculpture, and painting, and bronze work. The city of Florence—beloved today by every lover of the arts—was the seat of the Medicis. There were their palaces and there dawned the Golden Age in Tuscan art. It is too great a story to enter upon here; but we may note that from the days of Cosmo the Elder, through the reign of Lorenzo the Magnificent, to the days of his grandson Lorenzo—father of Catherine de Medici, say from 1350 to 1550—art work in bronze reached its highest perfection in Italy. It was in this period that Lorenzo Ghiberti achieved his baptistery gates, already alluded to. After twenty-one years' labor, aided by no less than twenty artists, these

gates were set up in 1424. How much of life and effort a "masterpiece" implies!

Among the contemporaries or early followers of Ghiberti were Filippo Brunelleschi, Donatello, Luca della Robbia and Valerio Cioli. The work of this last named artist excelled for its elegance of design and perfection of detail. One of the treasures of the Italian National Museum in Florence is a bronze candelabrum by Cioli. Elegant in form, of great wealth of ornament, perhaps its most interesting feature is the oval cartouche or escutcheon repeated on each of the three sides of its triangular base, bearing the six pills which are the familiar emblem of the Medici arms.

And now I must be a little personal.

During a recent sojourn in Florence I found one day in the hands of a dealer in antiquities and art objects, not only one but two candelabra bearing the Medici crest. The workmanship was undoubtedly old—and that of a master; it did not take long to establish the fact that they were, not replicas, but beyond question the original companions of the candelabrum in the National Museum. The three were identical in size, ornamentation and apparent age. All bore three times repeated the Medici emblem. Perhaps in the days of Lorenzo the Magnificent they stood together in some marble corridor of his palace, or served to light the way up broad stairs for the braves and beauties of old Florence. At any rate, there they were, one owned by the Italian Government, two others in the antiquary's shop.

I will pass over the negotiations which followed. Enough to say that they presently assumed an international character; and tonight the pair of bronze candelabra made by Varerio Cioli, under the patronage of the Medicis some time in the latter part of the fifteenth century, are here on the platform before you. I take pleasure in offering them for a permanent possession of the Buffalo Historical Society.

FORTY-SIXTH ANNUAL MEETING

The forty-sixth annual meeting of the Buffalo Historical Society was held at the Historical Building, Tuesday evening, January 14, 1908. The President, Andrew Langdon, welcomed the audience with the following address:

THE PRESIDENT'S ADDRESS.

Members of the Historical Society, Ladies and Gentlemen: Once more it is my pleasant privilege to welcome you to the annual meeting of this society. We have reached our forty-sixth mile-post, and without imposing upon your patience any extended review of past years, you will permit me in a brief sentence or two to refer to some things done by our society.

We have, first of all, with a fair degree of success, steadily carried out the main purpose of the founders of this institution, which was, that we should collect and preserve records and relics of historical value relating to Buffalo and its surrounding region. If we did nothing but that, we should well justify our existence and make this institution useful to all who come after.

But, as I revert in memory to past years, I recall many special achievements which we can claim to our credit. Most of these, naturally, are in the field of memorials and mementos of men or events.

Buffalo is not rich in monuments, but of those we possess, this society is to be credited, in whole or part, with the erection of the beautiful bronze statue of Red Jacket; the soldiers' and sailors' monument in Lafayette Square—for, with the original project which resulted after many years in the erection of this monument, our society was actively identified; as we have been also in the work of the Niagara Frontier Landmarks Association.

It was this society that reburied in Forest Lawn the remains of Red Jacket's famous fellow-chieftains and marked their graves with suitable stones. Here, too, we have brought the remains of that splendid Seneca, capable soldier and worthy citizen, General Ely S. Parker. In this and in other historical work we have coöperated with the local posts of the Grand Army of the Republic.

We have also rescued from oblivion the old burial ground at Williamsville, where soldiers of the War of 1812 camped and died.

Nor should we forget in a list of memorials the bronze statue of Lincoln standing in our own building, for which, as for other Lincoln and Civil War relics preserved by us, the public is indebted, not only to the Historical Society, but to the Lincoln Birthday Association and its devoted founder, Julius E. Francis.

Our most notable material contribution to the life of Buffalo is, of course, this building; but to one who gives thought to the history of our city, the building is of far less consequence than its contents.

Its library—I may say its two libraries, for we are custodians of the John C. Lord collection as well as of our own—its portraits, preserving the features of hundreds of the men and women who made Buffalo; and its museums, almost wholly made up of gifts from many interested friends; all of these collections exist today and are placed freely at the service of the student and the visitor, as the direct outgrowth of the desire of some of our predecessors years ago that there should be in Buffalo an institution whose duty it should be to collect and preserve things relating to our local history.

I might dwell at much greater length on the past and what we have done or tried to do; but although it is our business to deal with the past, it is more to my present purpose to look into the future. If the original motto of this society was "Preserve," we have now reached the time when we should add to it another motto—"Make useful." To make this institution useful in the community in as many becoming and effective ways as possible, is at present our chief aim.

While we continue to collect and preserve with even greater assiduity than ever before, we also bend our energies towards making our collections useful and towards a worthy participation in broader fields of historical work in which we may legitimately share to the advantage of our members.

In my view, no effort of recent years except that which gained for us our building and present relations with the city has been a greater source of strength to this society than has come about through our share in the work of the American Historical Association. That, as you know, is the national organization of historical workers, made up not only of those who write and teach and study, but of historical societies themselves, both those which are supported by their States and others which, like our own, are purely private in their character.

Within the past two or three years this society has come to share in the work of the national organization. That participation has put us out of the class of ineffective and moribund organizations, of which there are many bearing the name "historical," and has ranged us with those who seek to achieve each year something which will add, not only to their historical organizations, but to the material for historical study, especially in their own field.

Although this association with the national organization is not a source of revenue, I still venture to believe that it is a source of material strength to our society.

The time seems to have come when institutions like ours, if they have any guiding hands, any guiding minds, in historical work, and any resources with which to carry on that work, will recognize the advantage to be gained from coöperation.

There are already in some States federations of historical societies. These federations seek to do certain things which few societies alone can do. Generally speaking, they are working out uniform plans for the gathering of historical material from Government archives, or other depositories, and then for its listing, so that even if not published students may be told where to go for desired information. And last of all, as means allow, orderly methods of publication are being taken up, so that there is not as heretofore a duplication of work and needless expense. These, in general terms, are some of the things which are brought about largely through the stimulus of the national Association; whether or not our society can share in some such federated work with its sister societies in this State remains to be seen.

New York State, although first in many things, is by no means first in its acceptance of modern methods of historical study. But we have at least reached the point where the opportunity is recognized, and it will rest with such of our members as have a taste for historical research, and with our whole body as a financial backing for the workers, whether or not we make some advance in this line the coming year.

There is one other line of our work which I desire to mention: I refer to our Society Publications. Begun in 1879, they were discontinued by the society for lack of support the following year. It is only within recent years that we have been able to resume this work which we are now carrying forward with at least one resulting volume annually. Our series has reached its eleventh volume. Volumes 10 and 11 are devoted to the life record of our first president and one of the founders of this society, Millard Fillmore. We

have long felt that we owed to Mr. Fillmore's memory a recognition which has not hitherto been accorded to him by any scholar.

In the two latest volumes of our Publications there have been gathered as fully as possible without further delay, Mr. Fillmore's speeches, addresses on many occasions, official and private correspondence. I think you will agree with me on examining these volumes and considering their relation, not only to many events and institutions in our own city, but to the great national issues of Mr. Fillmore's time, with which he was called upon to deal—you will agree, I think, that these volumes are by long odds the most important contributions to American history which we have yet put out. No attempt has been made in compiling them to provide a biography of Mr. Fillmore: the distinct purpose has been to gather his own words so that when his biographer shall appear there will be no lack of material at hand by which Mr. Fillmore's character and conduct may be fairly judged.

No judgment yet reached by any American historian has been based on such a full exhibition of Mr. Fillmore's own work as we are now able to make.

I have spoken of the monuments which this society has erected. If we are encouraged in our efforts to continue and to develop our Publication series, giving it as high a character and worthy setting-forth as possible, we shall be warranted, I think, in regarding it after all as not the least of the monuments erected by this society; and not merely because it is a credit to us—though we hope that will be the case—but because these volumes set forth and preserve records otherwise lost or perverted. No other agency attempts the service for Buffalo and its vicinity that we are doing in this publication work. I may add that the limitations on the work are chiefly those of expenditure; as we are strengthened in our financial resources, so can we increase this work. It rests with you as members and with the community to whom we look for new members, whether or not this work shall notably grow in the coming years.

The reports of our Secretary-Treasurer will inform you of many details of the past year, to which I need not refer.

I am prone to repeat what I have said on every recurrence of this occasion: We need new members; we want the young as well as the elderly, for we want as many worthy citizens of Buffalo as possible to feel interested in our society and our work, and to profit as only members can profit therefrom.

The annual reports of the Secretary-Treasurer were read and approved.

Messrs. Albert H. Briggs, M. D., R. R. Hefford, Lee H. Smith, M. D., Willis O. Chapin and Loran L. Lewis, Jr., were elected members of the board of managers for a term of four years. Following the business meeting, the Hon. Henry W. Hill addressed the audience on "New York State and the Lake Champlain Tercentenary Celebration."

At the annual election of officers, January 16, 1908, the officers of 1907 were all reëlected. The secretary's report for the year 1907 follows:

THE SECRETARY'S REPORT.

The Secretary's report to the Board of Managers for the year ending December 31, 1907, is as follows:

Condition of the Society. Speaking generally, the past year has been a good one for our society. We have made some gain in membership, we have materially improved our property, we have carried on our work in the various lines which we recognize as legitimate and we have, it is believed, in some degree made the institution useful in the community and established it more firmly than ever in the esteem of the citizens of Buffalo.

Building. The condition of the Society's building is today better than ever before. The work which was begun in 1906 with funds specially appropriated for repairs and betterments by the city has been continued as far as resources would allow. Ornamental iron guards have been placed on all of the basement doors and windows. This work instead of detracting from the appearance of the building proves to be somewhat ornamental and adds materially to our security.

The inside work done during the year has been almost wholly in the basement; the plaster and cement baseboards, moldings and bases of pillars, which had gone to pieces, have been replaced with Tennessee marble. The cement floor of the basement has been relaid when necessary. Plumbing has been renewed and repaired in the public toilets. The heating plant has been materially extended and radiators installed in the hitherto unused rooms under the south approach. Perhaps the most satisfactory interior work of the year has been the completion of the large room at the west end of the basement which was left by the New York Commission in 1901 wholly unfinished, the walls not being even plastered. This room has now been plastered, the floor taken up for sewer construction underneath and relaid, necessary woodwork supplied and the walls on the four sides shelved to the ceiling for the accommodation of newspaper files and public documents. A map case has

also been built for the preservation of our mounted maps. All of this work has been done as simply and inexpensively as possible, and while it is by no means ideal library construction, yet it enables us to take better care of this most important part of our literary material. The room is one of the best lighted and most easily warmed in the building and is now at the service of any visitor who wishes to consult these files.

The exterior work done during the past year includes the entire reconstruction of the north steps and abutments and the rebuilding of the abutments and facing wall of the south approach. It was found impossible to make definite contracts for this work, as none of the contractors who were invited to bid on it would undertake to fix a limit to the cost. The Building Committee of the Board and the entire Board (so far as the members attend the meetings and were cognizant of the work in hand), approved the course which has been followed, namely: that of proceeding by day's work, contractors rendering to the Board a weekly statement of labor and expense. As the work went on, it was found necessary to take down the heavy abutments on the south side as far as the foundation in order to rebuild the walls in which cracks had appeared, owing, in the opinion of the architect and contractors, to a subsidence or settlement of the filled ground on which a part of this south approach rests. Other causes also added to the expense of reconstruction, so that the cost of material and of labor largely exceeded the special appropriation which had been secured from the city for these items. In the judgment of the Board, it was advisable to carry the work through on the basis as undertaken. As the south approach now stands all of the marble blocks which had moved from their true place have been reset and anchored with angle irons; the large abutments have been reconstructed, the cap-stone now being so set and channeled that water will run from it readily with little or no chance to enter the joints, and the main flight of steps leading up to the portico have been similarly channeled and pointed. We were told from the outset that the pointing would not last and experience shows this to be true. There has been no time when the joints in the steps were water-tight. We were advised that it would be necessary to construct an inner roof or water-shed, under the steps in order to keep the rooms in this portion of the basement perfectly dry. That work, on account of cost, has not been undertaken, but as no interior finish has been attempted it can be added at any time without any waste of funds for decorative work. The rooms under the south approach have been finished in cement and supplied with radiators and the whole area of the basement is now heated. While this makes a greater draft on our coal supply than heretofore, it seemed advisable for the proper preservation of the building and the comfort of its occupants. The present winter will no doubt test the work that has been done so that by spring we will be well advised as to what further work is needed. The basement as a whole needs decoration—at least some uniform tinting of walls to remove the disfigurement of stains from water and of patching in the plaster. Partly because it seemed well to wait to discover if further leakage developed and partly for lack of funds, it was found advisable to

postpone all work of this character. It is, however, a present need of our building and should be done the coming year. In my last report I called attention to the interior decoration of the ceiling over the middle court and gallery museums. Nothing elaborate is suggested, in fact a mere tinting to get a warmer tone to correspond with the general color scheme, which would be in my judgment the only decoration desirable. The present ceiling is in the hard, cold white of the original construction. This work, while desirable, has not been deemed urgent, especially as there is still some trouble with roof leakage.

From the day the society took possession of the building until now there has always been more or less of leakage in the roof and although we have spent large sums on it, it cannot be said to be in a satisfactory condition even now.

This brings me to one other urgent need of the building if it is to be preserved, that is, the removal of the metal cornice and the substitution of a marble cornice. This would in fact only be the completion of the building according to the original design. When this work is done, the roof should be further overhauled and put in absolutely perfect condition. An estimate for a new cornice two years ago was made, and the needed amount was asked for from the city, but cut out of the estimates.

The city of Buffalo has nowhere freer use of property than in this building. While the care of it falls on the society, the profit and enjoyment of it are free to all. It represents, as it now stands, nearly a quarter of a million of dollars. If it is to be properly preserved for the continued use of the people of Buffalo, the repairs indicated should be made and so well made that for a time at least an end can be put to this constant reconstruction; and it should be clearly understood that the sooner work such as the new cornice is done, the less will be the cost of doing it, for to such a building every season of neglect brings more and more of deterioration.

Last fall the bronze candelabra procured by President Langdon in Florence and presented to this society, were installed on new bronze bases, fitted with suitable flame-shaped globes and electrical connections, and are now conspicuous additions to the beauty of the north approach.

Membership. The society has tonight 794 members, divided as follows: Patron, 1; honorary, 7; corresponding, 128; life, 138; resident or annual, 520.

Our losses during the past year have been almost wholly by death or removal from the city. In no year since the secretary has been conversant with the society's affairs have there been so few resignations. To his mind this indicates a degree of interest among the members which speaks well for the place the society holds in the community. This seems to be the place to repeat what has been said in former reports—that the society greatly desires more members, especially those whose work or whose interests as students are at all on historical lines. The maintenance of the building is covered by an income from other sources. This leaves us free to use *for* the members the income received *from* the members in annual dues. The more members we have, therefore, the

more we can do for them. There is practically no limit to what can be accomplished in the way of historical publication, providing the funds are available to carry on this feature of our work. Every member who feels disposed to help the society in this work can not do better than to find one or more new members for our list.

The income from life memberships constitutes a permanent fund which, under the by-laws of the society, cannot be dissipated. As we have at present no endowment, this constitutes our only permanent fund. We greatly desire more life members.

The losses by death from our membership during 1907 were as follows:

Jan.	6	JOHN FEIST,	Resident member
Feb.	9	ROBERT GERRARD,	"
	14	JOSEPH P. DUDLEY,	Life member
Mar.	19	GEORGE WADSWORTH,	Resident member
	21	ALLEN E. DAY,	"
Apr.	17	C. M. FARRAR,	"
May	13	FRANK H. GOODYEAR,	"
Jun.	2	MRS. W. E. SILVERTHORNE,	"
	6	AUGUST A. LANGENBAHN,	Life member
Jul.	31	JOSEPH KRUMHOLZ,	Resident member
Sep.	13	DR. ELECTA B. WHIPPLE,	"
	27	LYMAN M. BAKER,	"
	28	CAPT. MARCUS M. DRAKE,	"

Several of these members were of long standing in their association with the society. Mr. Joseph P. Dudley joined the society January 17, 1874, and since May, 1899, had been a member of its Board of Managers. From the first he had been devoted to the welfare of the organization. As one of the directors of the Lincoln Birthday Association Mr. Dudley was instrumental in bringing about the transfer of the Julius E. Francis collection and fund to the Historical Society. With the fund was procured the bronze statue of Lincoln that now stands in the court of our building. As was stated in the resolutions adopted by the Board on Mr. Dudley's death: "In all his relations to this Board, as in all the relations of life, he brought good cheer and good counsel."

Museums. The society has never devoted money to its museums, except to provide cases. The articles on view have all come by gift. Under the circumstances, it is to be expected that there should be great variety in the character of the collections, with little scientific completeness. As a matter of fact, however, the collection as a whole is far better than would be expected. Especially in the Indian department, thanks to such friends of the society as Barton Atkins, Jonathan Scoville, and especially Wm. B. Cottier, our possessions are of value and genuine educational worth. During the year the greater part of the collections have been relabeled.

Various Activities. During the year the society has given twenty-eight lectures and two musicals for the public, six evening entertainments, including a reception, exclusively for members. The Sunday afternoon lectures were discontinued for a time owing

to the illness of the secretary. Our members may count on a number of entertainments of high character during the present season. What we do in this line for the public will in a measure depend on the appreciation shown, by attendance, and by new accessions to membership. A course of lectures, and one or two special exhibitions, are contemplated.

In September we offered the hospitality of our building to the American Social Science Association, the New York State Historical Association and the Eighth District Branch of the New York State Medical Society. The sessions of these various societies were full of interest and enjoyed by all who attended. During Old Home Week, in October, we arranged a loan exhibition; and to representatives of the society was entrusted the arrangement of the official programme. As was to be expected, very many visitors returning to Buffalo for that reunion inspected our building and museums.

In October, also, by arrangement with the School Department, over four thousand children of the public schools, and also numerous classes from the parochial schools, visited the Historical Building, with their teachers and in some cases with their principals, spending an hour in the museums, sometimes with descriptive talks by an attendant. It is the desire of the officers of this society to coöperate as fully as possible with the schools of the city, and the Secretary but expresses the sentiment of the Board in extending as widely as possible the invitation to all, whether children or adults, who can find in our collections here any assistance in their studies, to come and make free use of what we have.

The society has also been brought into close relations with the American Historical Association, sharing in the conference of State and local historical societies, held at Madison, Wisconsin, in December. This phase of our work has been dwelt upon by President Langdon in his report and need only be alluded to here. We have shared in the work of the Niagara Frontier Landmarks Association. We have gone on record in formal resolutions relative to certain historical movements of wide interest. A resolution adopted by the Board was submitted to the State Senate urging the acceptance on the part of the State of the gift from Hon. William P. Letchworth of his beautiful estate on the Genesee, known as Glen Iris, to be devoted to the free use of the public as a park. Similarly, the Board has adopted resolutions in behalf of the scenic and historic features of the Niagara Frontier; and urging the State of New York to take appropriate action for the celebration of the tercentenary of the discovery of Lake Champlain and favoring the erection of a permanent memorial in relation thereto.

Other matters of an historic character which very likely will receive our attention at an early date are the celebration of the three hundredth anniversary of the discovery of the Hudson, which falls, as does the Champlain celebration, in 1909; and, of more vital importance, it is the purpose of the Board to promote, if possible, some method of associated work between the different historical societies of this State, at least so far as relates to the location of documentary material now scattered in private hands or buried in institutions which do not publish.

Publications. This brings us to the phase of our work which has occupied more of the Secretary's time during the past year than anything else—the collection and editing of material for Volumes X and XI of our Publications. The President's report has already touched upon this subject and I need only record that these volumes are devoted to the writings and speeches of Millard Fillmore, our purpose being to put in enduring shape as full a record as possible of Mr. Fillmore's public career. He is, perhaps, the only President of the United States of whom no adequate biography exists. He was President at a period when the very life of the nation depended upon the policy pursued by its legislative and executive departments. That he was bitterly assailed and maligned for his course is a matter of record, but it has remained until now for any attempt to be made to present Mr. Fillmore's own utterances and own views as fully as possible on the questions with which he was called to deal. While this society does not publish his biography, it is giving to the world a body of material, much of it now for the first time published, which will enable the biographer when he shall appear to treat of Mr. Fillmore and his attitude towards the questions of his day with a greater degree of justice than has heretofore been possible. Our publication of these papers, I may add, is, in our view, a matter of justice to the memory of our first president and one of the founders of this society. Very few of his manuscripts were in our possession, very few in fact appear to exist in any single depository. By dint of much correspondence we have brought together a most interesting collection, especially of his private correspondence. You will find in these volumes many letters written to the statesmen or public men of his own day, including Webster, Clay, Everett, James Brooks, Erastus Brooks, Horace Greeley, and others; and especially letters written to Thurlow Weed, the great master-mind of New York State politics for many years. For a most interesting collection including some scores of letters to Mr. Weed which revealed the inner history of New York State politics through a considerable period of years, this society owes an especial word of acknowledgment to Thurlow Weed's granddaughter, Mrs. Emily Weed Hollister of Rochester, through whose great courtesy we are allowed to make use of the letters.

The society has also pledged its support in a project of coöperative publishing of an annual bibliographical review of "Writings on American History." This project is in the able hands of Dr. J. Franklin Jameson, director, Department of Research, Carnegie Institution; and our contribution, not to exceed $50 per year for five years, is contingent on the guarantee of a sufficient fund to ensure the accomplishment of the work on a plane and scope altogether creditable. It is a distinct aid to our society to be thus prominently identified in the promotion of a national undertaking.

Library. During the year we have added to the library 821 volumes, of which 764 were gifts or received by exchange from other institutions. The total number of catalogued items in our library at the end of the year was 17,219; this does not include the greater part of our bound newspapers and public documents, nor a large

collection of the unbound material, the latter, however, being in part classified and available for the student.

So far as our library grows by purchase, it is developing in an orderly way so as to become as full a collection as possible of books relating to the history, not only of Buffalo, but of the greater region of whose history we are a part. Anything relating to the development of the St. Lawrence and Great Lakes valley in the early periods of our national history should have a place here, as should also the literature of the several wars of the Indians of Western New York, the development of canal and railway traffic and of the lake marine; and, in short, the story of every phase of the evolution of this section of the country should be here gathered as fully as possible.

Something has been done the past year towards adding to our collection of newspapers and taking better care of what we have. Much of our library expenditure was for rebinding files neglected for many years. The society has, undoubtedly, the best collection of the newspapers of Buffalo and vicinity anywhere to be found, and we are now better able to place them at the service of the public than ever before.

Donors to the library during the past year include, besides public institutions, the following friends whose interest is much appreciated:

Lady Meux of London, England; Mrs. Emily Weed Hollister, Rochester; Miss Eliza A. Blakeslee, Caledonia; Miss Harriet Buck, Miss Mary M. Hawley, Mrs. Emma A. Rice, and Messrs. George H. Lamb, Walter J. Shepard, Bruce Cornwall, Andrew Langdon, Hon. Daniel H. McMillan, Frank H. Severance, Henry W. Hill, Henry C. Rew, John C. Graves, Ralph Bowman, John D. Meister, Robert Lynn Cox and Henry R. Howland.

While the list of gifts to the museums and portrait collections contains no one article of striking prominence, it contains many things which are historic and add to the interest of our building. The full list of donors and donations, too long to be submitted here, is preserved in our records.

MEETINGS AT HISTORICAL BUILDING, SEASON OF 1907-08.

1907.

Sep. 11-14. Annual convention, American Social Science Association.

17-18. Annual convention, New York State Historical Association.

25-26. Annual meeting, Medical Society of the State of New York, Eighth Judicial District.

Oct. 13. Address by Frank H. Severance on Oliver Wendell Holmes, with exhibition of bust given by Richard Brooks.

20. Address on "The Municipal League of Buffalo," by the Secretary of the League, Robert S. Binkerd.

27. Address on "Honolulu, the Paradise of the Pacific," by Mrs. George W. Townsend.

17. Evening entertainment for members: "Hiawatha Recital," by Miss Mabel Powers of Rochester; Miss Mary Harrison of Rochester, pianist.

Dec. 13. Evening entertainment: Recital of the "Christmas Carols" of Charles Dickens, by Mr. E. S. Williamson of Toronto; piano selections by Mr. Edward F. Haendiges of Buffalo.

1908.

Jan. 14. Annual meeting; election of trustees; address by Hon. Henry W. Hill, on "New York State and the Lake Champlain Tercentenary Celebration." Annual reports of officers.

Feb. 11. Lecture by Maj. Louis Livingston Seaman on "Some of the Evils of Colonization."

16. Address: "Some Old Buffalo Characters," by Frank M. Hollister.

23. Address: "George Washington," by Rev. Wm. Burnett Wright.

Mar. 23. Illustrated lecture by Dr. Edgar J. Banks, archaeologist. Subject: "Bismya, the oldest city on earth."

29. Address by Basant Roy, a Hindoo of Calcutta, on "The present crisis in India."

Apr. 5. Address by William Edward Foster, on "My Experiences on a Blockade Runner during the Civil War."

19. Piano Recital, Miss Allene von Liebich.

26. Address: "Story of the Great Hudson River Chain," by Frank H. Severance.

May 3. Address: "Some Curiosities of Bible Translation," by Frank H. Severance.

10. Exploration of the Indian Ossuary at St. David's, Ont. Address and exhibition of relics, by Dr. A. L. Benedict.

17. Address: "Present Status of the Philippines," by Lt.-Col. Wm. H. C. Bowen, 13th U. S. Infantry.

19. Members' meeting: Paper on "Early Recollections of Buffalo," by Mrs. Julia F. Snow; songs by Dr. Frederick C. Busch; Dr. Prescott Le Breton, accompanist.

24. Recital, Miss Lina S. Hartman.

Jun. 23. Annual Commencement, School 21 (North Park School, Hertel Ave.).

INDEX

Abbott, J. W., of Cornwall, 162.
Abell, William H., 316; president of Buffalo Board of Trade, 328.
Abraham, A., of Brooklyn, 17.
Adam, James N., mayor of Buffalo, 326.
Adam, Robert B., chairman of Grades Crossings Commission, 308-310; "History of the Abolition of Railroad Grade Crossings in the City of Buffalo," cited, 309 note; president of Buffalo Merchants' Exchange, 328.
Adams, Charles L., of New York, vice-president of Syracuse convention, 17; member of finance committee of Canal Association of Greater New York, 47.
"Admiral," boat, 383 note.
Advisory Board of Consulting Engineers, personnel, 63-64.
Advisory Commission on Differential Rates by Railroads, 77; report quoted, 80-81.
Aetna building, Buffalo, 240.
Albany, N. Y., canal conference, 1903, 63, 175; canal hearing, 1898, 160; cost of transportation to New York, 219; boats owned at, 383-384 note.
Albany *Argus*, 370.
Albany Board of Trade, organized, 254.
Albany county, N. Y., vote on barge canal question, 192.
Aldrich, William, boat master, 384 note.
Allds, Jotham P., at banquet to Gov. Roosevelt, 43.
Allegany county, N. Y., loss of population, 99; vote on barge canal question, 193.
Allen, George W., original member of Buffalo Board of Trade, 250.
Allen, John, subscription to 100th Regiment fund, 274.
Allen, John, *Jr.*, delegate to National Ship-Canal Convention, 311.
Allen, Lewis F., "Recollections of the Early Forwarding Trade," 377-379.
Allen, Orlando, 276; letter to G. H. Salisbury, concerning the Erie canal gun-telegraph, 392-394.
Allerton, D. D., of New York Produce Exchange, 107 note.
Ambler, Henry S., introduces bill to sell canals, 171.
American Cheap Transportation Association, 316.
American News Co., 6.
"Andrew Jackson," boat, 384 note.
Andrews, F. H., vice-president, member of board of managers, Produce Exchange, 107 note.
Andrews, William, original member of Buffalo Board of Trade, 250.
Angle, Charles E., of Rochester, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Annin, R. E., vice-president of Produce Exchange, 107 note.
Anthony, Edward L., of Buffalo, 164.
Anthony, J. C., canal shipper, 383.
Anti-canal convention, 177.
"Ariadne," boat, 383 note.
Arkell, James, of Canajoharie, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Armour, O. H., of New York Produce Exchange, 79.
Armstrong, Charles B., trustee of Gratuity Fund, 299.
Armstrong, George E., 6.
Arnold, H. W., of Albany, 170.
Association of Dealers in Building Materials, 50.
Assouan dam, 156.
Athearn, Cyrus, original member of Buffalo Board of Trade, 250.
"Atlantic," boat, 383 note.
Auburn Businessmen's Association, 13.
Austin, D. S., 273.
Austin, Stephen G., 280.
Avery, William, canal shipper, 383.
Ayrault, N., original member of Buffalo Board of Trade, 250.

Babcock, Geeorge R., 280.
Bacon, Francis E., of Syracuse, member of State committee, Syracuse convention, 17; of Executive committee, 18; of State committee, Buffalo convention, 23; of Barge Canal committee, Utica convention, 162.
"Badger State," steamer, 272, 274.
Baird, Frank B., of Buffalo, vice-president of Syracuse convention, 17; speaks at banquet to Gov. Roosevelt, 46; at hearing of Commerce Commission, 161; delegate to Syracuse convention, 164; member

of canal committee of Buffalo Merchants' Exchange, 164, 166; delegate to Syracuse convention, 1901, 167.
Baker, Howard H., 283.
Balch, George W., chairman of Canal committee of New York Produce Exchange, 95.
Baldwin, Loammi, engineer, 359, 360.
Ball, Conway W., inspector of grain, 294.
"Baltic," boat, 384 note.
Baltimore, freight rates to, 77, 81-83, 87; International Commercial convention, 1871, 313-314.
Baltimore & Ohio Railroad, improvements, 66; complaint of Produce Exchange against, 90.
Baltimore Board of Trade, 254.
Barber, Herbert, of New York Produce Exchange, 79; member of board of managers, 107.
Barge canal, resolutions of Canal Association of Greater New York, 48-50; report of committee on route, 55; bill drafted, 56-58; passed, 67; plan of campaign, 67-68; vote of the people, 75, 116; "Action of the New York Produce Exchange relative to Railroad Differentials and Canal Enlargement," by H. B. Hebert, 77-108; "Inception of the Barge Canal Project," by F. V. Greene, 109-120; estimated cost, 117-118, 130; estimated cost of transportation through, 128; influence upon freight rates, 135-156; cost of construction and operation of barges, 138; survey bill passes, 163; $26,000,000 bill defeated, 168; referendum bill of 1902 defeated, 170-171; both parties declare in favor of, 173; hearings on bill, 175-176; schemes to defeat bill, 175; bill passed, 176; election carried, 179; "Reminiscences of the Barge Canal Campaign," by H. J. Smith, 181-185; vote by counties, 192-193.
Barker, Luther, boat master, 383 note.
Barnes, John V., of New York, vice-president of Syracuse convention, 17; of Buffalo convention, 22; on executive committee for banquet to Gov. Roosevelt, 43; president of Produce Exchange, 107 note.
Barrows, Elliot T., on executive committee, banquet to Gov. Roosevelt, 43; letter to J. A. Fairlie, quoted, 93; issues invitation to canal meeting, 96; president of Produce Exchange, 107 note.
Barton, Benjamin, of Lewiston, 377.
Barton, James L., temporary chairman of River and Harbor convention, 262; of firm of S. Thompson & Co., 377, 379; death, 379 note.
Bayard, *Dr.* A. H., secretary of Utica convention, 13; member of canal committee, 162.
Beach, S. H., of Rome, 23; on committee to confer with Gov. Odell, 167; calls on Gov. Odell, 169.
Beach, *Capt.* —, civil engineer, 361.
Beals, J. R., original member of Buffalo Board of Trade, 250.
Beals, J. W., original member of Buffalo Board of Trade, 250.
Beard, William H., exhibition of painting for 100th Regiment fund, 272, 274.
Beardsley, Josiah, contract to lease boat for celebration of opening of canal, 386-387.
Becker, Philip, trustee of Buffalo Merchants' Exchange, 289; member of committee on grade crossings, 309.
Beebe, Milton E., architect of Board of Trade, 289.
Beier, Jacob, & Son, build Board of Trade building, 290.
Belgium, canals, 150.
Bennett, David S., subscription to 100th Regiment fund, 273; on recruiting committee, 275.
Bennett, James Gordon, 70.
Bennett, Levi, boat master, 384 note.
Bentley, James R., subscription to 100th Regiment fund, 273; president of Buffalo Board of Trade, 328.
Beresford, *Lord* Charles, guest of Buffalo Merchants' Exchange, 324.
Bernard, *Gen.* —, civil engineer, 363.
Betts, Ira, boat-builder, 382.
Bidwell, Benjamin, original member of Buffalo Board of Trade, 250.
Big Buffalo Creek, 238.
Bingham, David, 79.
Binghamton, N. Y., represented at State Commerce convention, 9, 13, 14.
Binghamton *Republican*, leading anti-canal paper, 190.
Bird island, 388.
Bissell, Amos A., of New London, 381; removes to Lockport, 382; to Buffalo, 383.
Bissell, Herbert P., canal champion, 178.
Bissell, John, canal shipper, 383.
Bissell & Bridgeman, 273.
Black, Frank S., governor of New York, appoints State Commerce Commission, 36, 42, 44, 137, 155, 160, 189; appoints commission to inquire into work on canals, 189.
Black Rock, N. Y., strife for canal terminus, 238, 242, 387-388; annexed to Buffalo, 258; international bridge to Fort Erie, 265; forwarding trade, 377-379; canal boats owned at, 383-384 note; invited to participate in opening of canal, 385-386; leases boat for opening celebration, 386-387.
Black Rock Business Men's Association, 14.
Blackmar, A. T., subscription to 100th Regiment fund, 273.

Blackmar, Abel E., assists in drafting barge canal bill, 56, 58, 61; at hearing on bill, 63; speaks at Canal Association dinner, 71-72; counsel of New York Produce Exchange in complaint against Joint Traffic Association, 87, 89; speaks at Syracuse convention, 164; on committee to solicit Gov. Odell's support for referendum bill, 171; attends Buffalo conference, 174; Albany conference, 175; at canal hearing, 176.
Blackwell Ship canal, 255.
Blanchard, George R., vice-president Erie railroad, testimony before the Hepburn committee quoted, 146; testimony before Inter-state Commerce Commission, 155.
Blancon, P. C., original member of Buffalo Board of Trade, 250.
Blunt, *Lieut.-Col.* C. E., surveys for canal, 132.
Boards of Trade, earliest organizations in the United States, 254.
Boas, Emil L., member of executive committee for banquet to Gov. Roosevelt, 43; of finance and sub-executive committees of Canal Association of Greater New York, 47; of Canal committee of Produce Exchange, 93, 107 note; letter to H. B. Herbert, 94; treasurer of Canal Association of Greater New York, 97.
Boat builders, 381-383.
Boat-men's Association, 383.
Boats, list of canal boats and masters, 383-384 note.
Bodman, E. C., member of Canal committee of New York Produce Exchange, 107 note.
Bogert, H. Myers, 107 note.
"Bolivar," boat, 384 note.
Bond, Edward A., state engineer and surveyor, 43, 54; member of State Committee on Canals, 110, 190; makes surveys for barge canal, 118; at Buffalo conference, 172.
Bond, Hugh L., attorney for Baltimore & Ohio system, 90.
Bonnar, *Dr.* John D., speaks at Buffalo convention, 29; delegate to Utica convention, makes address, 162.
Boody, David A., speaks at meeting of New York Produce Exchange Canal League, 70, 104; signs appeal to voters, 105.
Boonville Board of Trade, 14.
Boston, discrimination in freight rates to, 87; Board of Trade organized, 254; commercial rival of New York, 371.
Bostwick, Charles F., introduces barge canal bill in Assembly, 61; speaks at meeting of New York Produce Exchange Canal League, 70, 104; at Cooper Union meeting, 74.
Bowring, Charles W., 107 note.
Brace, Lester, leases boat for opening of Erie canal, 386-387.
Brainard, J., original member of Buffalo Board of Trade, 250.
Brainerd, Frank, member of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23; of Canal committee of New York Produce Exchange, 37, 93, 107 note; of committee to consider route of canal, 54; of Canal Improvement State committee, 68, 102, 176; letter to, from J. A. Fairlie, 90; guest of G. K. Clark at dinner, 98; president of Produce Exchange, vice-president, 107 note; at Albany conference, 1901, 167; on committee to confer with Gov. Odell, 169; calls on Gov. Odell, 169, 170; supports referendum bill of 1902, 170; on committee to solicit aid of Gov. Odell, 171; to attend Republican state convention, 172; at Buffalo conference, 174; canal champion, 178; on commission to inquire into work on canals, 189.
Brant, Joseph, 342.
Breed, James L., of Syracuse, 382.
Brewster, Henry C., of Rochester, vice-president of Syracuse convention, 17; of Buffalo convention, 23.
Bridge, H. P., subscription to 100th Regiment fund, 273.
Bridgeman, J. W., & Co., canal shippers, 383.
Bristol, C. C., original member of Buffalo Board of Trade, 250.
Broadhead, Charles C., engineer, survey of eastern division of Erie canal, 335-345.
Brockway, Charles M., boat master, 383 note.
Bromley, Drayton, boat master, 384 note.
Bronx river, 361.
Bronxville, N. Y., represented at Utica convention, 14.
Brookfield, William, on executive committee for banquet to Gov. Roosevelt, 43.
Brooklyn, N. Y., anti-canal bureau, 177; votes for canal appropriation, 1894, 188.
Broome co., N. Y., vote on barge canal question, 192.
Brown, H. H., of Spencerport, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Brown, Harvey W., of Rochester, treasurer of Syracuse convention, 17; member of Executive committee, 18; treasurer of Buffalo convention, 23; member of barge canal committee, Utica convention, 162, 163.
Brown, *Capt.* James J. H., at canal hearing, delegate to Utica convention, 161; to Syracuse conventions, 164, 167; member of canal com-

mittee of Buffalo Merchants' Exchange, 164, 166; at Buffalo conference, 172; canal champion, 178; guest of H. J. Smith at dinner, 185; president of Buffalo Chamber of Commerce, 329.
Brown, James W., original member of Buffalo Board of Trade, 250.
Brown, John G., original member of Buffalo Board of Trade, 250.
Brown, William O., subscription to 100th Regiment fund, 273.
Browne, Warren C., 185.
Brownell & Boyd, 274.
Browns' elevator, 258.
Brunswick and Trenton canal, 227.
Bryant, Warren, original member of Buffalo Board of Trade, 250.
Buck, R. R., 270.
Bucklin, E. M., of Ithaca, member of State committee, Buffalo convention, 23, 169; calls on Gov. Odell, 169.
Buffalo, N. Y., elevator facilities, 7; represented at Utica convention, 14; convention, 1901, 21-33, 39, 183; fifth port of the world, 136; steel plant, 154; elevator interests oppose Raymond plan, 159; hearing on the canal question, 1899, 161; conference, 1902, 171-172; press supports barge canal project, 178, 191; votes for canal appropriation, 1894, 188; canal meetings, 1816, 212-213 note; distance to New York, Montreal and New Orleans, 217; cost of transportation to New York, 219; streets of Buffalo, 238-241; strife for canal terminus, 238, 387-388; wharves, 240-241; business development, 242; lake tonnage, 1844, 253; harbor enlargement, 254-255; communication with Pittsburg, 256; first elevators, 257, 258; Black Rock annexed, 258; convention, 1892, 306; Old Home Week, 326; traffic, 373-374; boat-building firms, canal shippers, 383; boats owned at, 383-384 note; opening of canal, 385-394.
"Buffalo," boat, 384 note.
Buffalo & Hornellsville Railroad, 250 note.
Buffalo & Washington Railroad, 280.
Buffalo Board of Trade, "Historical Sketch," by F. H. Severance, 237-329; organization, 243-244; first building, 244-247; pioneer organization in Great Lakes region, 254; brings about dredging of St. Clair Flats, 258-262; incorporation, 264; new rooms on Central Wharf, 266-270; annual statement of trade and commerce of Buffalo, 269; commercial circular, 270; new by-laws, 270; adopts a regiment, 272-279; finances, 279-285; the move up-town, 285-295; Merchants' Exchange incorporated, 289; Seneca street building, 289-291; canal policy, 303-308; relations with other organizations, 311-324; opposes Niagara ship canal, 312; membership in National Board of Trade, 314; new building, 1905, 325; presidents, 328; meeting on removal of E. H. Walker to New York, 370.
Buffalo Business Men's Central Council, 13.
Buffalo Chamber of Commerce, "Historical Sketch," by F. H. Severance, 324-329; semi-centennial celebration dinner, 325-326; advocate of canal improvement, 326; presidents, 329.
Buffalo *Commercial Advertiser*, account of first meeting of Board of Trade quoted, 247; description of Board of Trade rooms quoted, 263; report of Board of Trade banquet cited, 268; editorial by E. H. Walker, quoted, 367-370.
Buffalo *Courier*, 265.
Buffalo creek, 239, 240, 258.
Buffalo Creek Railway Company, 255.
Buffalo *Daily Republic*, 265.
Buffalo *Democracy*, 265.
Buffalo *Evening News*, strong position on canal question, 172, 181.
Buffalo *Express*, series of articles on canals, 189; article by Mrs. Keller, cited, 245 note; article by R. W. Haskins, 390-392.
Buffalo Fire & Marine Insurance Company, 252.
Buffalo *Gazette*, quoted, 211-212 note.
Buffalo Harbor Company, 241.
Buffalo Historical Society, "Publications," cited, 197 note, 211 note, 268 note, 309 note, 349 note; meeting in 1864, 251 note; clearance books owned by, 383-384 note; canal documents in archives, 385-394; receives medal commemorative of opening of canal, 392; proceedings 46th annual meeting, Jan. 14, 1908, 403-413; meetings, season 1907-1908, 413-414.
Buffalo *Journal*, 391.
Buffalo Merchants' Exchange, represented at Utica convention, 13; proposes resolutions at Buffalo convention, 31; sends committee to New York, 50; conference with committee of Canal Association of Greater New York, 51, 54; canal committee appointed, 164; committee to solicit funds, 164-165; canal bureau, 165-166; work for the barge canal, 164-178; meeting of canal committee, 166, 173; appoints committee to meet Gov. Odell, 174; appoints canal committee, 183; "Historical Sketch of the Merchants' Exchange," by F. H. Severance, 289-324; incorporated, 289; new building, 289-291; revised by-laws, 293-294; rules and regulations, 295-296; work in connection with Pan-American Exposition, 297; philanthropies, 297-298; Gratuity fund, 298-299; work for the canals, 305-308; grade crossings campaign, 308-310; action concerning various

national and state bills, 318-319; Transportation committee, 319-320; Niagara Frontier Freight Bureau, 320; various activities, 321-324; Bureau of Conventions and Industries, 323; distinguished guests, 323-324; name changed to Chamber of Commerce, 324; presidents, 328-329.
Buffalo *Morning Advertiser*, 261 note.
Buffalo Plains, 389.
Buffalo Real Estate Association, 327.
Buffalo Retail Merchants' Board, 327.
Buffalo river, deepening of, 326.
Buffalo Savings Bank, 251 note.
Bugbee, Oliver, original member of Buffalo Board of Trade, 250; director, 263.
Bull, Absolum, of Black Rock, 386.
Bull, J. B., director of Board of Trade, 250.
Burgess, Edward G., president of New York Produce Exchange, 57, 107 note; vice-president, 107 note.
Burr, *Prof.* William H., member of Advisory Board of Engineers, 63; statement before Joint Canal Committee, 64.
Burt, David, 386.
Burton, Theodore E., quoted, 149-150.
Burwells, 251 note.
Bush, Myron P., original member of Buffalo Board of Trade, 250; incorporator, 264; subscription to 100th Regiment fund, 274.
Busher, *Capt.* Martin, lake weighmaster, 302.
Butler, Samuel, 278 note.
Butler, Theodore, original member of Buffalo Board of Trade, 250.
Butterworth bill, 318.

Cady, B. F., of Lockport, 382.
Cady, F. L. A., of Buffalo Board of Trade, 283.
Camden, N. Y., represented at Utica convention, 14.
Camp, *Major* John G., member of Buffalo Harbor Company, 241; excavates west end of canal, 388-390.
Campbell, *Capt.* Charles, speaks at Buffalo convention, 29.
Campbell, J. D., attorney for Philadelphia & Reading R. R. Co., 90.
Campbell, M. Robert, speaks at Cooper Union meeting, 74; signs appeal to voters, 105; mentioned, 178.
Campfield, A. B., original member of Buffalo Board of Trade, 251.
Canada, commercial rivalry, 515; enlargement of canals, 38, 371.
Canada Creek, 201.
Canajoharie, N. Y., represented at Utica convention, 14; incident of early days, 342.
Canal and Harbor Union, New York, 14.
Canal Association of Greater New York, organized, 46-47, 97; resolutions approving barge canal bill, 48-50; committee visits Buffalo, 51, 54; report of committee on route of canal, 55; dinner to New York editors, 55, 70.
Canal Boat Owners' Association of the State of New York, represented at Utica convention, 13; at canal meeting, New York, 1899, 40; cooperates in banquet to Gov. Roosevelt, 42; on organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49.
Canal boats, list of boats and masters, 383-384 note.
Canal conventions. See Conventions.
Canal Enlargement Association, Buffalo, 14, 307.
Canal Forwarders' Association, 46.
Canal Improvement League of the Produce Exchange. See New York Produce Exchange Canal League.
Canal Improvement State Committee, campaign for barge canal, 68-75, 176-180; personnel, 102, 176.
"Canal Improvement Union," by F. S. Gardner, 1-11.
Canal locks, enlargement of, 133-134.
"Canal Memorial of 1816," 211-233.
"Canal Primer," issued by Committee on Agitation, 67.
Canal street, Buffalo, 239; fire, 258.
Canals, of Canada, 38, 150; of Europe, 149-151, 225-227; cost of various canals, 225-229; era of canal construction, 255.
Canals, of New York, "The United States Government and the New York State Canals," by T. W. Symons, 121-134; history, 1895-1903, 157-180; Second report of the Western Inland Lock Navigation Company, 197-208; Canal Memorial of 1816, 211-233. See also Barge canal, Erie canal, and names of other canals.
Canastota, N. Y., represented at Utica convention, 14.
Canastota Business Men's Association, 13.
Canfield, *Capt.* —, 261 note.
"Cantor bill," 318.
Capen, T., boat master, 384 note.
Capron, Oliver, boat master, 383 note.
Carnegie, Andrew, letter to Gen. Greene, quoted, 45; address at canal dinner, quoted, 52; guest of G. K. Clark, 98; letter to H. B. Herbert, quoted, 101; open letter, cited, 154.
Carnegie Steel Company, at Conneaut, 52.
Carpenter, *Col.* —, employer of Canvass White, 354, 355.
Carpenter, R. P., of New Rochelle, vice-president of Syracuse convention, 17.
Carpenter, A. S., & Co., canal shippers, 383.
Carroll, P. V., canal shipper, 383.
Carroll Bros., boat builders, 383.
Carroll street, Buffalo, 242.
Cartoon of barge canal campaign, 186.

Cary, Samuel, subscription to 100th Regiment fund, 273.
Caryl, A. H., director of Board of Trade, 250, 251.
Caryl, Benjamin, 340.
Case, Niles, subscription to 100th Regiment fund, 274; on canal committee of Buffalo Board of Trade, 304.
Casler, Philip W., of Little Falls, 178.
Catlin, —, artist, emblematic picture of Gov. Clinton, 390-392.
Caswell, H. A., of Rome, 170.
Catskill river, tide ascends above, 215.
Cattaraugus, N. Y., represented at Utica convention, 14.
Cattaraugus co., N. Y., vote on barge canal question, 192.
Caughnewaga, N. Y., 342, 343.
Cawcroft, Ernest, of Jamestown, 178.
Cayuga and Seneca canal, 26.
Cayuga co., N. Y., vote on barge canal question, 192.
Cayuga lake, 204, 382.
Central Wharf, Buffalo, 242, 291-293, 374.
Chadwick, Charles N., of Brooklyn, member of State committee, Buffalo convention, 23, 169; speaks at Buffalo convention, 28.
Champlain canal, improvement recommended by State Commerce convention, 15; bill providing for survey drawn, 41; improvement provided for in barge canal bill, 61-62, 130; estimated cost of improvement, 117-118; included in referendum bill of 1902, 170.
Chapin, O. N., 274.
Chapin, Theodore, original member of Buffalo Board of Trade, 251.
Chapin, *Col.* W. W., 388.
Chard, W., original member of Buffalo Board of Trade, 251.
Charleston, S. C., earthquake, 297.
Chautauqua co., N. Y., pro-canal sentiment, 191; vote on barge canal question, 192.
Chemung canal, abandoned, 157.
Chemung co., N. Y., vote on barge canal question, 192.
Chenango canal, abandoned, 157.
Chenango co., N. Y., loss of population, 99; vote on barge canal question, 192.
Chester, Thomas, 288.
Chicago, commercial position in 1816, 218; in 1844, 253; River and Harbor convention, 1847, 262; fire, 297; National Ship-Canal convention, 1863, 311.
Chicago Board of Trade, organized, 254; subscribes toward dredging St. Clair Flats, 261.
"Chili," boat, 384 note.
Chippewa street, Buffalo, 238.
Chittenango, N. Y., survey of canal through, 337; boat-building, 382.
Christiana and Elk canal, 227.
"Christopher Columbus," boat, 384 note.
Churchyard, Joseph, 308.
Cincinnati Board of Trade, organized, 254.
"Citizen," boat, 384 note.
Citizens' Association of Buffalo, 321.
Citizens' Union, advocates canal improvement, 70.
"City of Buffalo," steamer, 322.
Clapp, Almon M., secretary of National Ship-Canal convention, 311.
Clapp, Otis, boat master, 383 note.
Clark, Archibald, boat master, 383 note.
Clark, Charles F., 98.
Clark, Cyrus, subscription to 100th Regiment fund, 273.
Clark, F. B., of Oswego, 175.
Clark, Gardiner K., *Jr.*, member of finance committee of Canal Association of Greater New York, 47; gives dinner for discussion of canal question, 51-53, 97-98; on committee to confer with Gov. Odell, 60-61; member of Canal committee of Produce Exchange, 107 note; supports referendum bill of 1902, 170; solicits support of Gov. Odell for bill, 171.
Clark, Grosvenor, original member of Board of Trade, 251.
Clark, Isaac, vice-president, Syracuse convention, 16.
Clark, James A., original member of Buffalo Board of Trade, 251.
Clark, Thomas, subscription to 100th Regiment fund, 273.
Clark, W. A., original member of Buffalo Board of Trade, 251.
Clark, *Capt.* William C., of Constantia, active in canal campaign, 162; press agent, 187.
Clark & Skinner canal, 255.
Clarke, Cyrus, 259, 260; member of committee on reorganization of Buffalo Board of Trade, 282; submits minority report, 282-283; suggests appointment of weighmaster, 302; on canal committee of Board of Trade, 304; president of Board of Trade, 328.
Clarke, Frederick O., of Oswego, 63; member of Canal Improvement State committee, 102, 176.
Clarkson, Edward M., member of Canal committee of Produce Exchange, 107 note; supports referendum bill of 1902, 170.
Clay, Henry, tribute to Canvass White, 363-364.
Cleary, William E., 6; on executive committee for banquet to Gov. Roosevelt, 43; at canal hearing, 1898, 160; member of barge canal committee, Utica convention, 162; speaks at hearing on 450-ton canal, 168; supports referendum bill of 1902, 170; on committee to present resolutions to Republican state convention, 173; at canal hearing, 175; canal champion, 178.
Clement, Stephen M., 290.

Cleveland, Grover, appoints canal commission, 139; member of Buffalo Merchants' Exchange, 293.
Cleveland, N. Y., represented at Utica convention, 14.
Cleveland, O., lake tonnage, 1844, 253; Board of Trade organized, 254; International Deep Waterways Association convention, 306.
Clinton, DeWitt, governor of New York, memorial to the Legislature, quoted, 135; drafts memorial, 211 note; leader of Erie canal policy, 334; meets Canvass White, 365; letter concerning White's discovery of hydraulic cement, quoted, 356; connection with early canal legislation, 350; first trip through Erie canal, 390; emblematic picture, by Catlin, 390-391.
Clinton, George, of Buffalo, president of Canal Improvement Union, 2; member of State committee, Syracuse convention, 17; Buffalo convention, 23; assists in drafting barge canal bill, 58, 61; at canal hearing, 63; speaks at Canal Association dinner, 71; congratulatory message to H. B. Herbert, 106; secures appropriation for lengthening locks, 157; at canal hearing, 1898, 160; speaks at Utica convention, 162; at Syracuse convention, 164; member of canal committee of Buffalo Merchants' Exchange, 164, 166, 182; of committee to solicit funds, 165; at Albany meeting, 1901, 166; delegate to Syracuse convention, 1901, on committee to confer with Gov. Odell, 167; speaks at hearing on 450-ton canal, 168; supports referendum bill of 1902, 170; at Buffalo conference, 1902, 171; on committee for Albany conference, delegate to Republican state convention, 172; non-partisan policy, 174, 179; at Buffalo conference, on committee to meet Gov. Odell, 174; at Albany conference, at canal hearing, 175; canal champion, 178, 179, 188; opposition to 1000-ton barge canal plan at Syracuse convention, 182; guest of H. J. Smith at dinner, 185; member of commission to inquire into work on canals, 189; chairman of Union for the Improvement of the Canals of the State of New York, 305; activity in behalf of canals, 306, 307; president of Buffalo Merchants' Exchange, 329.
Clinton, *Judge* George W., 391.
Clinton, Ohio, 219.
Clinton co., N. Y., vote on barge canal question, 192.
Clothier's Association of New York, 29.
Clyde, N. Y., 384 note.
Clyde river, 38.
Coats, Giles K., secretary of Board of Trade, 250, 251, 302.
Cobb, Ansel R., boat master, 384 note.
Cobb, Carlos, incorporator of Buffalo Board of Trade, 264.
Cobb, Harvey, boat master, 384 note.
Cobb & Co., 273.
Cody, Joel, boat master, 384 note.
Coffee Exchange, 42.
Cohoes, N. Y., represented at Utica convention, 14.
Cohoes Business Men's Association, 13.
Cohoes Falls Company, 345.
Coit, George, last of those engaged in early forwarding trade, 377 and note.
Coit, G. C., & Son, 273.
Colt Slip, 255.
Cold Spring Business Men's Association, Buffalo, 14.
Cole, —, of North Bay, N. Y., boat-builder, 382.
Coler, Bird S., speaks at Cooper Union meeting, 74; signs appeal to voters, 105; canal champion, 178.
Columbia co., N. Y., loss of population, 99; vote on barge canal question, 192.
Cominsky, Frank W., 107 note.
"Commerce," boat, 383 note.
Commerce, decline of, in New York, 35-36, 137.
Commercial Slip, Buffalo, 239, 240, 254.
Commercial street, Buffalo, 239, 241.
Conkling, Roscoe, canal advocate, 145; letter to William Thurstone, 305 note.
Conneaut, Ohio, development of steel business, 52.
"Connecticut," boat, 384 note.
Connecticut river, improvement, 362.
Constantia, N. Y., Board of Trade, 32.
Conventions, Utica, 1885, 2; 1899, 9-16, 39, 161-162, 182; Syracuse, 1900, 16-21, 39, 182; 1901, 21, 183; Buffalo, 1901, 21-33, 39, 183.
Cook, Robert H., of Whitehall, 162.
Cooley, Lyman E., 98.
Cooley, T. M., member of commission on railroad rates, 77, 80.
Coolidge, Thomas S., of Glens Falls, 23.
Cooper Union, mass-meeting, 74.
Corbit, Charles P., of New York, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
"Corn Planter," boat, 383 note.
Cornell, S. G., & Co., 274.
Cornwall Board of Trade, 13.
Cornwell, William C., of Buffalo, 165.
Cortland, N. Y., represented at Utica convention, 14.
Cortland co., N. Y., loss of population, 99; vote on barge canal question, 192.
Cortland co., N. Y., Board of Supervisors, 14.

Corwine, William R., member of State committee, Buffalo convention, 23, 169; on committee for banquet to Gov. Roosevelt, 43; on sub-executive committee of Canal Association of Greater New York, 47; visits Buffalo, 51; on committee to consider route of canal, 54; at canal hearing, 63; at Albany meeting, 1901, 167; calls on Gov. Odell, 169; supports referendum bill of 1902, 170; on committee to solicit aid of Gov. Odell, 171; attends conference at Buffalo, 171.
Costello, Thomas M., of Altmar, vice-president of Syracuse convention, 17; of Buffalo convention, 23.
Cotton Exchange, N. Y., 42; coöperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49; joins in "Campaign of Education," 97.
Courier and Republican, article on the origin of the Erie canal, 349.
Cowing, H. O., original member of Buffalo Board of Trade, 251.
Coxsackie, N. Y., represented at Utica convention, 14.
Coxsackie Board of Trade, 13.
Coykendell, S. D., of Rondout, member of State committee, Syracuse convention, 17; Buffalo convention, 23; on executive committee for banquet to Gov. Roosevelt, 43; on finance committee of Canal Association of Greater New York, 47; guest of G. K. Clark at dinner, 98.
Crandall, Orville A., delegate to Utica convention, 161.
Crane, Monroe, of New York, Produce Exchange, 86.
Craw & Knapp, boat builders, 382.
Credit Men's Association, Buffalo, 298.
Crimmins, John D., 105.
Crittenden, Myron L., 288.
Crocker, Leonard, boat master, 383 note.
Cross street, Buffalo, 239.
Croton river, 361.
Cummin, Joseph W., 17.
Cumming, C. M., attorney for Erie System, 90.
Cunneen, John, secretary of Utica convention, 13; of Syracuse convention, 17; member of State committee, 17; secretary of Buffalo convention, 23; member of State committee, 23; delegate to canal conference, New York, 50; to Utica convention, 161; at meeting of canal committee of Buffalo Merchants' Exchange, at Albany meeting, 166; delegate to Syracuse convention, 1901, 167; on committee to confer with New York canal people, 169; delegate to Albany conference, 172; canal champion, 178.
Curtiss, Charles G., 283; president of Buffalo Board of Trade, 314, 328; welcomes the National Board of Trade, 315.
Curtiss, Peter, 379.
Curtiss & Root, 379.
Cutter, A. W., subscription to 100th Regiment fund, 273.
Cutting, R. Fulton, 105.

Daggett, Hollis, boat master, 384 note.
Dale, John G., 79.
Dana, George S., of Utica, vice-president of Utica convention, 23.
Dandy, *Col.* George B., colonel of the 100th Regiment, 276; address before the Board of Trade, quoted, 277; made his regiment best in the Department of Virginia, 279.
Daniels, George H., opposition to canals, 146.
Dare, Fred V., of New York Produce Exchange, 86; member of board of managers, 107 note.
Darrison, John T., of Lockport, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Dart, Joseph, *Jr.*, original member of Buffalo Board of Trade, 251; builds first elevator, 257, 258, 374.
Davidson, W. C., 274.
Davis, George, director of Buffalo Board of Trade, 250, 251.
Davis, George A., introduces in Senate bill for enlargement of canal locks, 53; bill defeated, 54, 98; introduces barge canal bill, 61; calls on Gov. Odell, supports referendum bill of 1902, 170, 171; at Buffalo conference, 172.
Davis, Gherardi, at banquet to Gov. Roosevelt, 43.
"Davis-Bostwick bill," provisions of, 61-62.
Daw, Alfred D., secretary of Buffalo Board of Trade, 302.
Daw, Henry, original member of Buffalo Board of Trade, 250, 251; subscription to 100th Regiment fund, 274; president of Board of Trade, 328.
Day, Harry B., of New York Produce Exchange, 84, 86.
Day, Thomas, gift of building lots for 100th Regiment fund, 272, 274.
Dean, Benjamin S., of Jamestown, 178.
Deasey, Timothy, of Little Falls, 17; vice-president of Buffalo convention, 22.
Deep Waterways Commission, report quoted, 122-123.
De Forest, R. W., attorney for Central R. R. of N. J., 90.
Delahunt, Edward, & Co., 383.
Delaware and Chesapeake canal, 228.
Delaware and Raritan canal, 363.
Delaware co., N. Y., vote on barge canal question, 192.
Delaware, Lackawanna & Western Railroad improvements, 66; tracks in Buffalo, 240.

De Long, James, original member of Buffalo Board of Trade, 251.
Demming, C., original member of Buffalo Board of Trade, 251.
Democratic Party, platform pledging canal improvement, 56, 173.
Depew, Chauncey M., at banquet to Gov. Roosevelt, 43; remark on freight rates, 145; speech at Elmira, quoted, 146, 147.
Depopulation of various counties of New York, 99-100.
Derrick, S. W., 273.
Deshler, John G., 260; subscription to 100th Regiment fund, 273; on recruiting committee, 275.
Detroit, Mich., commercial position, 1816, 218; lake tonnage, 1844, 253; Board of Trade organized, 254; Niagara Ship Canal convention, 312.
"Detroit," boat, 384 note.
Deuther, George A., original member of Buffalo Board of Trade, 251.
DeWaltearrs, S., on executive committee for banquet to Gov. Roosevelt, 43.
DeWitt, Jerome, of Binghamton, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
"De Witt Clinton," boat, 383 note.
Dexter, Seymour, of Elmira, vice-president of Buffalo convention, 22.
Dickinson, Charles, of Lockport, 170, 178.
Dickson, William, 273.
Diehl, Conrad, mayor of Buffalo, member of State and Executive committees, Syracuse convention, 17; delegate to Utica convention, member of Canal committee, 162.
Differential rates, Action of New York Produce Exchange relative to, 77-93; report of Advisory Commission on, 81.
Diven, J. M., of Elmira, vice-president of Syracuse convention, 17.
Dobbins, *Capt.* D. P., 252; on canal committee of Buffalo Board of Trade, 304.
Dodge, *Col.* —, 355.
Dodge, Leonard, congratulatory message to H. B. Hebert, 105; canal champion, 178; guest of H. L. Smith at dinner, 185; president of Buffalo Merchants' Exchange, 324, 329.
Dodge, William E., chairman of banquet to Gov. Roosevelt, address cited, 43-44; guest of G. K. Clark at dinner, 98.
Dold, Jacob, 309.
Doran, Michael, of Durhamville, 382.
Dorr, *Capt.* Ebenezer P., 252, 280; delegate to meetings of National Board of Trade, and American Cheap Transportation Association, 316; president of Buffalo Board of Trade, 328.
Dorrity, Thomas, speaks at Buffalo convention, 29.
Douglas, C. N., of Albany, 170.
Douglas, Herbert H., of Oneida, vice-president of Syracuse convention, 17.
Douglas, William H., member of Canal committee of Produce Exchange, 107 note.
Downey, Robert, of Oswego, 175.
Dows, Meech & Carey, 393.
Doyle, James, 107 note.
Doyle, Nathaniel, 107 note.
Doyle, Peter C., president of Buffalo Merchants' Exchange, 329.
Drake, Marcus M., member of State committee, Syracuse convention, 17; Buffalo convention, 23; speaks at Buffalo convention, 28; delegate to Utica convention, member of canal committee, 162; delegate to Syracuse conventions, 164, 167; supports referendum bill of 1902, 170; at Buffalo conference, 1902, 171; delegate to Albany conference, 172; canal champion, 178, 306.
Dresser, D. LeRoy, vice-president of Buffalo convention, 22; guest of G. K. Clark, 98; delegate to Republican state convention, 172.
Dudley, Thomas J., original member of Buffalo Board of Trade, 251.
"Dunkirk," boat, 384 note.
Du Puy, *Capt.* —, of New York, 160.
Durant, Edward A., of Albany, vice-president of Buffalo convention, 22.
Durfee, Philo, commission merchant, 243; director of Buffalo Board of Trade, 250, 251; president of Board of Trade, 328.
Durhamville, N. Y., boat-building town, 382.
Dutchess co., N. Y., vote on barge canal question, 192.

Eames, John C., member of finance committee of Canal Association of Greater New York, 47; delegate to Syracuse convention, 164.
Eames, M. R., 274.
Easton, Fred, of Albany, 170.
Eckley, D., Jr., original member of Buffalo Board of Trade, 251.
Eckley, Joseph S., original member of Buffalo Board of Trade, 251.
Eckley, William H. E., original member of Buffalo Board of Trade, 251.
"Eclipse," boat, 384 note.
Eddy, Thomas, agent of Western Inland Lock Navigation Company, 349-350.
Edes, A. B., boat builder, 383.
Edson, Franklin, of New York, vice-president of Syracuse convention, 17; of Buffalo convention, 22; member of committee of New York Produce Exchange, 79; of Canal committee, 93, 107 note; at canal hearing, 1898, 160; member of commission to inquire into work on canals, 189.
Efner, Elijah D., original member of Buffalo Board of Trade, 251.

Elevators, charges, 78-79; first elevators in Buffalo, 257, 258.
Ellesmere canal, 226.
Ellicott, Joseph, 238.
Ellison, N. B., of Rochester Transportation Co., 382.
Ellsworth, Timothy E., effective support of barge canal survey bill, 163, 180.
Elm street, Buffalo, 238.
Elmira *Advertiser*, leading anti-canal paper, 190.
Elmwood avenue, Buffalo, 327.
Ely, W. Caryl, 326.
"Emigrant," boat, 383 note.
Emslie, Peter, 308.
England, canals, 226-227.
Enos, Laurens, 273.
Ensign, Charles, subscription to 100th Regiment fund, 272, 274.
"Envoy," boat, 384 note.
Erie, Pa., ordnance from naval station used in canal opening celebration, 392-393.
Erie basin, 255.
Erie Boatmen's Transportation Co., 6.
Erie canal, improvement recommended by State Commerce convention, 15; unable to compete with railroads, 36, 37; improvement plan of 1895, 37; depth of fourteen feet advocated by New York Produce Exchange, 38; bill providing for survey drawn by F. S. Gardner, 41; provisions of Davis-Bostwick bill, 61-62; improvement urged by Produce Exchange, 95; improvement act of 1895, 121; bill in Congress for widening locks, 125; contribution to the wealth of New York, 136; various routes discussed, 220-224; estimated cost, 228-229; enlargement, 255; work of Buffalo Board of Trade and Merchants' Exchange in behalf of, 303-308; "Reminiscences of Surveys in 1816-17," by W. C. Young, 331-347; "Secret History of Incipient Legislation," 349-351; Canvass White's services as engineer of canal, 355-359; route of canal, 357; E. H. Walker's work for canal, 367-372; "Recollections of the Early Forwarding Trade," by L. F. Allen, 377-379; "Notes on the Canal Forwarding Trade," by L. Porter Smith, 381-384; mementoes of opening of the canal, 385-394; narrative of beginning of construction, by William Hodge, 387-390; gun-telegraph, at opening celebration, 392-394.
Erie co., N. Y., vote on barge canal question, 116, 192.
Erie, Lake, commerce, 217; elevation above Lake Ontario, 223; above tide waters of Hudson, 224; supposition that water of Lake Erie would flow to Albany, 339.
Erie Railroad, improvements, 66; rates lowered by canal influences, 146.
Erie street, Buffalo, 238.
Essex co., N. Y., loss of population, 99; vote on barge canal question, 192.
Evans, A. M., of Herkimer, 178.
Evans, Charles W., original member of Buffalo Board of Trade, 251; subscription to 100th Regiment fund, 274.
Evans, Edwin T., 272; member of building committee of Buffalo Board of Trade, 288.
Evans, James C., original member of Buffalo Board of Trade, 250, 251; member of committee for improving St. Clair Flats, 260; incorporator of Board of Trade, 264; steamer excursion for benefit of 100th Regiment fund, 272.
Evans, J. C., & E. T., subscription to 100th Regiment fund, 274.
Evans, John B., original member of Buffalo Board of Trade, 251.
Evans & Dunbar's elevator, 258.
Evans Slip, 255.
Evarts, William M., canal advocate, 145.
"Exchange," boat, 383 note.

Fairchild, Ben L., counsel for Commerce Commission, 189.
Fairlie, John A., at dinner to Gov. Roosevelt, 43; secretary of State Committee on Canals, 190.
Fairoaks, battle of, 271.
Falley, —, mayor of St. Louis, 311.
Fargo, William G., 264; estate, 286.
"Farmer," boat, 384 note.
Farmington canal, 362.
Farr, Rinaldo, original member of Buffalo Board of Trade, 251.
Farrelly, Patrick, 6.
Farrington, W. C., 171.
Fassett, Theodore S., member of State committee, Syracuse convention, 17; Buffalo convention, 23, 169; delegate to canal conference, New York, 50; to Utica convention, 161; on committee to confer with New York canal people, calls on Gov. Odell, 169, 170; supports referendum bill of 1902, 170; on committee to solicit support of Gov. Odell, 171; delegate to Albany conference, 172; on committee to meet Gov. Odell, 174; at Albany conference, 175; canal champion, 178; represents Buffalo Merchants' Exchange at Democratic state convention, 184.
Favill, Josiah M., member of Canal committee of Produce Exchange, 107 note.
Ferris, Peter J., subscription to 100th Regiment fund, 273; vice-president of Merchants' and Manufacturers' Building Association, 288.
Fetterolf, A. C., of New York Produce Exchange, 107 note.
Field, Cyrus W., 277 note.
Filkins, George, canal shipper, 383.

Filkins, Stanley E., of Medina, vice-president of Buffalo convention, 22; speaks at convention, 28; supports referendum bill of 1902, 170; delegate to Republican state convention, 172, 173; canal champion, 178.
Fillmore, Millard, 251 note; at Buffalo Board of Trade banquet, 267, 268 and note; remarks at opening of Board of Trade rooms cited, 293 note.
Fillmores, 251 note.
Fink, Albert, quoted, 146.
Finlay, Samuel L., 107 note.
Finn, Albert, of Lockport, 382.
Finn, Sidney, of Lockport, 382.
Fish, Hamilton, *Sr.*, canal advocate, 145.
Fish, Henry L., mayor of Rochester, 382; president of Boat-men's Association, 383.
Fish, Robert J., of Oneida, vice-president of Buffalo convention, 23.
Fish, Silas H., president of Buffalo Board of Trade, 328.
Fish & Armstrong, 274.
Fish & Avery, 274.
Fisher, John W., member of Canal Improvement State committee, 102, 176.
Fisher, William A., attorney for Baltimore Chamber of Commerce, 90.
Fish's elevator, 258.
Fiske, Frank W., 314.
Fiske, William, original member of Buffalo Board of Trade, 251.
Flagg, Samuel D., original member of Buffalo Board of Trade, 251.
Fleeharty, J., original member of the Buffalo Board of Trade, 251.
Fleming, William, director of Buffalo Board of Trade, 263.
Flower, Roswell P., governor of New York, 319, 321.
Folwell, *Mrs.* Sarah Heywood, 250 note.
Folwell, William W., of Minneapolis, 250 note.
Ford, Ansel, boat master, 383 note.
Ford, John, at banquet to Gov. Roosevelt, 43.
Forestport, N. Y., 142, 152, 153, 154.
Forestry Bureau, established in Buffalo, 322.
Forman, Joshua, 334.
Fort Erie, international bridge, 265.
Fort Herkimer, 203.
Fort Plain, N. Y., 14.
Fort Newport, 202.
Fort Schuyler, N. Y., Canal of Western Inland Lock Company, 197-208.
Forward, Oliver, member of Buffalo Harbor Company, 241.
Forwarding trade, recollections of, by L. F. Allen, 377-379; notes on, by L. Porter Smith, 381-384.
Fosbinder, Harris, delegate to Syracuse conventions, 164, 167; member of canal committee of Buffalo Merchants' Exchange, 166; trustee of Gratuity fund, 299.
Foster, Wm. C., & Co., 273.
Fowler, Anderson, member of finance committee of Canal Association of Greater New York, 47; of New York Produce Exchange committee on railroad rates, 79; guest of G. K. Clark at dinner, 98.
Fox, Watson A., original member of Buffalo Board of Trade, 251; proposes stock company for dredging St. Clair Flats, 259; chairman of committee on improving Flats, 259; vice-president of Board of Trade, 263.
Fox, Winthrop, 292.
Foy, Robert T., 252.
France, canals and railroads, 149.
Frankfort, N. Y., represented at Utica convention, 14; canal-boat building, 381.
Frankfort Board of Trade, 14.
Franklin, P. A. S., of New York Produce Exchange, 107 note.
Franklin co., N. Y., vote on barge canal question, 192.
Fraser, *Maj.* Donald, of Black Rock, 388.
Freer, William H., of Troy, vice-president of Syracuse convention, 17; of Buffalo convention, 23.
Freight rates, unjust discrimination, 27; action of New York Produce Exchange relative to, 77-92; "The Function of New York's Barge Canals in Controlling Freight Rates," by J. D. Kernan, 135-156; ocean, lake, railroad and canal rates compared, 143-144.
Freight steamers, cost of construction and operation, 95-96, 138.
French, George A., original member of Buffalo Board of Trade, 251.
French, Henry C., trustee of Gratuity Fund, 299.
French, S. O., boat master, 384 note.
Frink, H. A., 273.
Front street, Buffalo, 239-241, 242.
Fuller, George A., of Watertown, vice-president of Buffalo convention, 23.
Fulton co., N. Y., vote on barge canal question, 192.
"Function of New York's Barge Canals in Controlling Freight Rates," by J. D. Kernan, 135-156.

Gallatin, Albert, "Report on roads and canals," cited, 223, 227, 228.
Gamble, Hamilton R., governor of Missouri, 311.
"Ganges," boat, 383 note.
Gardner, Frank S., "The Canal Improvement Union," 1-11; secretary of Canal Improvement Union, 2; secretary of Utica convention, 9, 12, 13; of Syracuse convention, member of State committee, 17; of Executive committee, 18; secretary of New York Board of Trade and Transportation, 21; of Buffalo convention, 23, 169; member of State

committee, 23; drafts bill providing for survey of canals, 41; at banquet to Gov. Roosevelt, 43; member of sub-executive committee of Canal Association of Greater New York, 47, 51; member of committee to consider route of canal, 54; secretary of Canal Association of Greater New York, 97; organizes State Commerce convention, 161; member of barge canal committee, 162; organizes Syracuse convention, 164; at Albany meeting, 1901, 167; calls on Gov. Odell, 169; supports referendum bill of 1902, 170; attends conference at Buffalo, 171; Republican state convention, 172; at Albany conference, 175; canal champion, 178.
Gardner, John W., 274.
Garfield, James A., memorial service, Buffalo Board of Trade, 293.
Garrett, H., original member of Buffalo Board of Trade, 251.
Garrett, John W., president of Baltimore & Ohio Railroad, 80.
Gates, Justin, boat master, 384 note.
Geddes, James, engineer, 333, 346, 357.
Gelston, S. F., original member of Buffalo Board of Trade, 251.
Genesee co., N. Y., vote on barge canal question, 192.
Genesee river, aqueduct, 229.
Genesee street, Buffalo, 238.
Genesee valley canal, abandoned, 157.
German Flats, N. Y., 203, 207, 208.
Germany, canals and railroads, 149.
Gilpin, Joshua, quoted, 228.
Gibson, C. D., 263.
Gilbert, Edwin, subscription to 100th Regiment fund, 273.
Gilson, George D., at canal hearing, 1899, delegate to Utica convention, 161.
Glens Falls feeder, 357.
Gloucester Point, Va., presentation of flag to 100th Regiment, 276.
Golden Age, 370.
Gorman, Charles A., of Medina, vice-president of Syracuse convention, 17.
Gould, Thomas R., member of Congress, 334.
Gowen, Francis I., attorney for Lehigh Valley R. R. Co., 90.
Grade Crossings Commission of Buffalo, 308-310.
Grady, Thomas F., speaks at Cooper Union meeting, 74; supports barge canal survey bill, 163, 180; canal champion, 178.
G. A. R. Encampment, Buffalo, 1897, 322.
Grand Island, bridge to, 322.
Grand Junction canal, 226.
"Granite Block," Buffalo, bought by Board of Trade, 325.
Gratwick, William H., president of Buffalo Chamber of Commerce, 326, 329.
Graves, Delos, canal shipper, 383.
Graves, John C., president of Buffalo Merchants' Exchange, 328.
Gray, D. F., original member of Buffalo Board of Trade, 251.
Great Lakes, commerce, 217-218.
Green, Andrew H., at dinner to Gov. Roosevelt, 43; member of Commerce Commission, 160, 189.
Green, Ashbel, attorney for West Shore R. R. Co., 90.
Green, Douglas N., of Syracuse, 17.
Green, E. S., of Cohoes, 162.
Green, George E., member of State Committee on Canals, 110, 160, 190; canal champion, 178, 191.
Green, James W., of Gloversville, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Green & Wicks, architects, 325.
Greene, *Gen.* Francis V., chairman of State Committee on Canals, 5, 39, 160, 190, 307; speaks at canal meeting, New York, 1899, 41; present at banquet to Gov. Roosevelt, 43; address cited, 45; speaks at Canal Association dinner, 70-71; conference with New York Produce Exchange, 93-94; guest of G. K. Clark at dinner, 98; "Inception of the Barge Canal Project," 109-120; member of barge canal committee, Utica convention, 162; canal champion, 178.
Greene, George C., attorney for L. S. & M. S. Ry. Co., 90.
Greene, William H., 280.
Greene Commission. See New York state, *Committee on Canals*.
Greene co., N. Y., loss of population, 100; vote on barge canal question, 192.
Greenman, J. L., canal shipper, 383.
Gregory, J. H., of Kingston, 17, 162.
Gridley, A. G., original member of Buffalo Board of Trade, 251.
Griffin, A. L., subscription to 100th Regiment fund, 273; canal shipper, 383.
Griffin, F. B., of Clinton, 178.
Griffin, John B., director of Buffalo Board of Trade, 263; delegate to meeting of American Cheap Transportation Association, 316.
Griffin & McDonald, 273.
Griffin, John M., original member of Buffalo Board of Trade, 251.
Griffiths, of Troy, 378.
Grote, Aug. R., subscription to 100th Regiment fund, 273.
Gruber, Abraham, 178.
Guilford, Simon, letter to C. B. Stuart, concerning Canvass White, quoted, 358-359; engineer of middle division of Union canal, 360.
Gun-telegraph, at opening of canal, 392-394.
Gurley, William F., of Troy, 17.
Guthrie, S. Sturges, subscription to 100th Regiment fund, 273; on canal committee of Buffalo Board of

Trade, 304; president of Board, 328, 370.

Hadfield, Robert, 304.
Hagemeyer, Frank E., member of Produce Exchange canal committee, 107 note; supports referendum bill, 170.
Hagemeyer & Brunn, letter to H. B. Hebert, concerning differential rates, 88.
Hager, John F., canal shipper, 383.
Haines, Alfred, member of State committee, Buffalo convention, 23, 169; member of canal committee of Buffalo Merchants' Exchange, 50, 164, 166; of legislative committee, 63; at canal hearing, 1899, 161; important work for barge canal, 165; at Albany meeting, 1901, 166; delegate to Syracuse convention, 167; on committee to confer with New York people, calls on Gov. Odell, 169; supports referendum bill of 1902, 170; on committee to solicit aid of Gov. Odell, 171; at Buffalo conference, 1902, 171, 174; delegate to Albany conference, to Republican state convention, 172; on committee to meet Gov. Odell, 174; at Albany conference, 175; raises funds for canal campaign, 179; president of Buffalo Merchants' Exchange, 329.
Hall, A. M., of Oswego, vice-president of Syracuse convention, 17; of Buffalo convention, 23.
Hall, Gordon W., speaks at Buffalo convention, 29; at canal hearing, 1899, 161; supports referendum bill of 1902, 170; at Buffalo conference, 1902, 171; delegate to Republican state convention, 173; canal champion, 178.
Hall, Nathan K., at Buffalo Board of Trade banquet, 267.
Hamilton, William, of New York Produce Exchange, 107 note.
Hamilton co., N. Y., vote on barge canal question, 192.
Hanna, Mark, guest of Buffalo Merchants' Exchange, 324.
Hanover street, Buffalo, 239; site of first "Merchants' Exchange," 244-246.
Hare, J. Montgomery, on executive committee for banquet to Gov. Roosevelt, 43.
Harmon, Justin, original member of Buffalo Board of Trade, 251.
Harrison, James C., 273.
Harrison, Jonas, member of Buffalo Harbor Company, 241.
Hart, Ithel, boat master, 384 note.
Harvey, Alexander W., 274.
Haskell, W. M., of Glens Falls, 17.
Haskins, R. W., "A Lost Work of Art," article in the Buffalo *Express*, 390-393.
Hatch's elevator, 258.
Hawes, S. W., original member of Buffalo Board of Trade, 251.
Hawley, Jesse, essays regarding the origin of the Erie canal, cited, 349 note.
Hawley, Merwin S., original member of Buffalo Board of Trade, 251; president, 263, 328; subscription to 100th Regiment fund, 274.
Hay and Straw Dealers' Association, 14.
Hayden, Albert, director of Board of Trade, 250, 251.
Hayes, Edward, secretary of Boatmen's Association, 383.
Hayward, E., original member of Buffalo Board of Trade, 251.
Hayward, H. C., original member of Buffalo Board of Trade, 251.
Hazard, George S., president of Buffalo Board of Trade, 259, 264, 267, 276, 328, 374; appoints committee on improvement of St. Clair Flats, 260; treasurer of improvement fund, 261; speech at Board of Trade banquet, quoted, 267-268; member of committee on inspection of grain, 270; subscription to 100th Regiment fund, 273; on recruiting committee, 275; welcomes regiment home, 277; letter to Major Otis, cited, 278; speaks at opening of new building, 291; unique service as president of Board of Trade, 300; death, 300 note; delegate to National Ship-Canal convention, 311; address at St. Louis, quoted, 311-312; delegate to International Commercial convention, Baltimore, 313-314; at meeting of Dominion Board of Trade, Ottawa, 314; speaks at National Board of Trade meeting, 315-316; appreciation of E. H. Walker, 370; tribute to, by G. A. Stringer, 373-375.
Hazeltine, Leonard, 79.
Heacock, Seth G., of Ilion, member of State committee, Syracuse convention, 17; Buffalo convention, 23; member of Canal committee, Utica convention, 162.
Heath, E., of Rochester Transportation Co., 382.
Heath, Morse & Co., canal shippers, 383.
Hebert, Henry B., of New York, member of State committee, Syracuse convention, 17; of Executive committee, 18; of State committee, Buffalo convention, 23, 169; chairman of canal meeting, New York, 1899, 40; on executive committee for banquet to Gov. Roosevelt, 43; on sub-executive committee of Canal Association of Greater New York, 47; visits Buffalo, 51; on committee to confer with Gov. Odell, 60; treasurer of Canal Improvement State committee, 68; speaks at meeting of New York Produce Exchange Canal League,

70, 104; presides at Canal Association dinner, 70; "Action of the New York Produce Exchange relative to railroad differentials and canal enlargement," 77-108; chairman of committee to confer with Joint Traffic Association, 84, 86; letter to, from Hagemeyer & Brunn, concerning differential rates, 88; letter to, from Oelrichs & Co., 88-89; chairman of Canal committee of Produce Exchange, 93, 107 note, 183; conference with State Canal Committee, 94; president of Canal Association of Greater New York, 97; guest of G. K. Clark at dinner, 98; letter to, from Gov. Odell, 99; letter to, from Andrew Carnegie, quoted, 101; treasurer of Canal Improvement State Committee, 102; signs appeal to voters, 105; messages of congratulation on success of referendum measure, 105-106; calls on Gov. Odell, 169, 170; supports referendum bill of 1902, 170; on committee to prevent resolutions to Republican state convention, 173; at Albany conference, 175; member of Canal Improvement State Committee, 176; canal champion, 178.

Heckman, G. A., 43.

Hedstrom, Eric L., trustee of Buffalo Merchants' Exchange, 289; speaks at opening of new building, 291; president of Merchants' Exchange, 295, 328.

Hefford, Robert R., member of Canal Improvement State Committee, 102; at canal hearing, 1899, delegate to Utica convention, 161; to Syracuse convention, 167; supports referendum bill of 1902, 170; on committee for Albany conference, delegate to Republican state convention, 172, 173; at Buffalo conference, 174; at Albany conference, 175; member of Canal Improvement State Committee, 176; canal champion, 178, 188, 306, 307; chairman of Chamber of Commerce building committee, 326; president of Buffalo Merchants' Exchange, 329.

Heimlich, G. J., 273.

Henderson, John J., 260; secretary of St. Clair Flats convention, 261; secretary of Buffalo Board of Trade, 265, 302; annual statement of trade and commerce of Buffalo, 265, 269.

Hengerer, William, trustee of Buffalo Merchants' Exchange, 289.

Hentz, Henry, on executive committee for banquet to Gov. Roosevelt, 43; on finance committee of Canal Association of Greater New York, 47; signs appeal to voters, 105.

Hepburn, A. B., on executive committee for banquet to Gov. Roosevelt, 43; on finance committee of Canal Association of Greater New York, 47; remarks at meeting of New York Chamber of Commerce, quoted, 65-67; guest of G. K. Clark at dinner, 98.

"Hercules," steamboat, 257.

Herkimer, *Gen.* Nicholas, home, 341.

Herkimer, N. Y., represented at Utica convention, 14.

Herkimer Board of Trade, 14.

Herkimer co., N. Y., vote on barge canal question, 192.

Hewitt, Abram S., canal advocate, 145.

Hewson, Archibald K., boat master, 383 note.

Heywood, Daniel, 250 note.

Heywood, Russell H., merchant of Buffalo, 242-243; president of Board of Trade, 244, 250, 251, 263, 300, 328; office in Board of Trade building, 346; address at first Board of Trade meeting, 247-249, 257; biographical sketch, 249-251 note; director of Buffalo Fire & Marine Insurance Company, 252; incorporator of Board of Trade, 264.

Hibbard, George B., 268; legal counsel for Buffalo Board of Trade, 281; responds to toast, 315.

Hickox, Charles R., 79.

Higgins, A. Foster, 189.

Higgins, C., boat master, 383 note.

Higgins, Frank, 180.

Higgins, Joseph W., chairman of Assembly committee on canals, 58.

Hill, —, of Chicago, president of St. Clair Flats convention, 261.

Hill, David B., governor of New York, signs bill establishing state naval militia, 318.

Hill, Henry W., introduces bill providing for survey of canals, 41; at banquet to Gov. Roosevelt, 43; address cited, 45; recognition of work by New York Produce Exchange, 46; speaks at Canal Association dinner, 73-74; "Historical Review of Waterways and Canal Construction in New York State," cited, 135 note, 197 note; quoted, 211 note; struggle for canals in constitutional convention, 158, 179; at canal hearing, 1898, 160; 1899, 161; delegate to Utica convention, makes address, 162; leads fight for passage of barge canal survey bill, 163; delegate to Syracuse convention, 164; at Albany meeting, 1901, 167; calls on Gov. Odell, 170; supports referendum bill of 1902, 170, 171; at Buffalo conference, 172, 174; at Albany conference, at canal hearing, 175; canal champion, 178; guest of H. J. Smith at dinner, 185; quotation from Lincoln's "Constitutional History of New York," concerning, 189.

Hills, Addison, original member of Buffalo Board of Trade, 251.

Hitchcock, C. L., 387.

Hitchcock, Chester, original member of Buffalo Board of Trade, 251.

Hitchcox, James, boat master, 384 note.
Hoar, George S., 323.
Hoar, Samuel, attorney for Boston & Albany R. R. Co., 90.
Hoar, Sherman, attorney for Boston Chamber of Commerce, 90.
Hodge, William, account of beginning of canal construction, 387-390; death, 387 note.
Hoffman, John T., governor of New York, message quoted, 367-368.
Hogan, Charles W., 107 note.
Holbrook, Ora L., original member of Buffalo Board of Trade, 251.
Holderman, Christopher, delegate to Utica convention, 162.
"Holland Purchase," boat, 384 note.
Holley, Samuel J., subscription to 100th Regiment fund, 273; on recruiting committee, 275; president of Buffalo Board of Trade, 328.
Holley & Johnson's elevator, 258.
Hollister, James, original member of Buffalo Board of Trade, 251.
Hollister, Robert, original member of Buffalo Board of Trade, 251.
Hollister, William, original member of Buffalo Board of Trade, 251.
Hollister's elevator, 258.
Holstein canal, 226.
Holt, A. J., 273.
Holt, George W., original member of Buffalo Board of Trade, 251; clerk of John Scott, 292.
Holt, William, 388.
Holt, Palmer & Co., 242.
Home Insurance Co., 6.
Homer, Adam, boat builder, 383.
Hooker, Azel, original member of Buffalo Board of Trade, 251.
Hoosac tunnel, 371.
Hopkins, John, engineer, 363.
Hornidge, Wm. H., speaks at Cooper Union meeting, 74.
Horton, A. W., contribution to 100th Regiment fund, 273; canal shipper, 383.
Hosack, *Dr.* David, letter to, from Benjamin Wright, quoted, 358.
Hosley, Frank, of Chittenango, 382.
Howard, Hiram F., original member of Buffalo Board of Trade, 251; subscription to 100th Regiment fund, 274; president of Board of Trade, 328.
Howard, R. L., original member of Buffalo Board of Trade, 251.
Howell, David J., of Washington, 176.
Howell, Stephen W., original member Buffalo Board of Trade, 251; subscription to 100th Regiment fund, 273; on recruiting committee, 275.
Hoxie, John C., member of State committee, Syracuse convention, 17; of Executive committee, 18; of State committee, Buffalo convention, 23; of Barge Canal committee, Utica convention, 162.
Hubbard, I. M., original member of Buffalo Board of Trade, 251.
Hudson, John T., 280.
Hudson river, advantages for navigation, 215; importance to state, 216; forwarding business on, 378.
Hughes, Charles E., governor of New York, guest at Buffalo Chamber of Commerce dinner, 326.
Humphrey, Correl, secretary of Syracuse convention, 17; of Buffalo convention, 23.
Humphrey, Richard, of Black Rock, member of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23; delegate to Utica convention, 162; at meeting of canal committee of Buffalo Merchants' Exchange, 166; delegate to Republican state convention, 173.
Hunt, Horace, original member of Buffalo Board of Trade, 251.
Hunt, S. B., original member of Buffalo Board of Trade, 251.
Hunter, Dexter, of Albany, 170.
Huntington, S. V. V., of New York, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Hutchinson, J. M., original member of Buffalo Board of Trade, 251.

Ilion, N. Y., represented at Utica convention, 14.
Ilion Board of Trade, 14.
Illinois, iron and steel industry, 102.
Indiana, iron and steel industry, 102.
International Commercial convention, Baltimore, 1871, 313-314.
International Deep Waterways Association, 306.
Iron industry, 101-102.
Irons, Stephen, of New London, 381.
Irwin, D. W., 273.
Italian Chamber of Commerce, New York City, 46; joins in resolutions favoring barge canal bill, 50.
Ithaca, N. Y., boat-building, 382.
Ives, John M., of Rochester, 177.

Jacus, W. C., & Co., canal shippers, 383.
James, Alonzo R., president of Buffalo Merchants' Exchange, 329.
James, Darwin R., on executive committee for banquet to Gov. Roosevelt, 43; on commission to inquire into work on canals, 189.
Janvier, F. H., attorney for Lehigh Valley R. R. Co., 90.
Jefferson co., N. Y., vote on barge canal question, 192.
Jerome, William, engineer, 357.
"Jerry," boat, 384 note.
Jervis, John B., 335; distinguished engineer, 346.
Jewell, John V., member of Canal committee of Produce Exchange, 107 note.
Jewett, Elam R., original member of Buffalo Board of Trade, 251.
Jewett, H. J., president of New York, Lake Erie & Western Railroad, 80.

Jewett, John L., subscription to 100th Regiment fund, 274.
Jewett, Sherman S., original member of Buffalo Board of Trade, 251.
Jewett, Thomas, & Co., 253.
Johnson, A. W., original member of Buffalo Board of Trade, 251.
Johnson, Ebenezer, member of Buffalo Harbor Company, 241; of firm of Johnson & Wilkeson, 378.
Johnson, *Col.* Guy, 341, 342, 343.
Johnson, Hiram, original member of Buffalo Board of Trade, 251.
Johnson, *Sir* John, 341, 342, 343.
Johnson, *Sir* William, 340, 341, 342, 343.
Johnson & Wilkeson, 378, 379.
Johnstone, A. M., 273.
Johnstown, Pa., flood, 297.
Joint Traffic Association, decision of Interstate Commerce Commission in case against, quoted, 73; organization, conference with committee of New York Produce Exchange, 84-86; complaint of Produce Exchange against, 87; hearings and report of Interstate Commerce Commission, 89-92.
Jones, Henry R., 283.
Jones, Miles, original member of Buffalo Board of Trade, 251.
Jones, Orsino E., of Jamestown, 178.
Jordon river, 338.
Joslin, Joel, boat master, 384 note.
Joslyn, John, of Buffalo, 178; associate editor of *Evening News*, 185.
Journal of Commerce, New York, favors canal improvement, 191.
Joy, Thaddeus, 378, 386.
Joy, Walter, original member of Buffalo Board of Trade, 250, 251; vice-president of Boatmen's Association, 383.
Joy & Webster, 292, 378.
Joy, Lewis B., & Co., 273.

Keep, Charles H., at canal hearing, 1899, 161; delegate to Syracuse convention, 164; member of canal committee of Buffalo Merchants' Exchange, 165, 166; secretary of Merchants' Exchange, 302.
Keller, *Mrs.* Mary E., "Buffalo Sixty Years Ago," cited, 245 note; quoted, 246.
Kelley, H., original member of Buffalo Board of Trade, 251.
Kelley, Hugh, of New York, member of Commerce Commission, 160, 189.
Kennedy, Charles F., of Buffalo, 164.
Kennedy, Thomas F., of Amsterdam, vice-president of Buffalo convention, 22.
Kennet and Avon canal, 226.
Kernan, John D., president of Utica convention, 1899, 9, 13; of Syracuse convention, 1900, 16, 182; chairman of State committee, and of Executive committee, 17; president of Buffalo convention, 22; chairman of State committee, 23, 169; speaks at banquet to Gov. Roosevelt, 46; member of State Commerce Commission, 47; counsel for Produce Exchange in complaint against Joint Traffic Association, 87, 89; "The Function of New York's Barge Canals in Controlling Freight Rates," 135-156; prominent canal advocate, 135 note; speaks at Utica convention, 162; calls committee meeting in New York, 162; conference with Gov. Roosevelt, 163; speaks at Syracuse convention, 164, 167; attends meeting at Albany, 1901, 166; calls on Gov. Odell, 169; supports referendum bill of 1902, 170; appoints committee to attend Republican state convention, 172; canal advocate, 178.
Kerr, John B., attorney for N. Y., O. & W. R. R. Co., 90.
Kessinger, A. R., of Rome, member of State committee, Syracuse convention, 17; of Executive committee, 18; of State committee, Buffalo convention, 23; at Albany meeting, 1901, 167; supports referendum bill of 1902, 170.
Ketchum, William, original member of Buffalo Board of Trade, 251.
Kibbee, G., 211 note.
Kibbee, W. H., of Albany, 170.
Kimberly, John L., 243; director of Buffalo Board of Trade, 250, 251; member of firm of S. Thompson & Co., 377, 379; death, 379 note.
Kimberly, Pease & Co., 243.
King, R. S., 274.
King, William F., speaks at meeting of New York Produce Exchange Canal League, 70; at Cooper Union meeting, 74; signs appeal to voters, 105; at canal hearing, 176.
Kingman, *Major* Dan C., member of Advisory Board of Engineers, 63.
Kings co., N. Y., vote on barge canal question, 116, 192.
Kingsbury, Edward H., of Little Falls, 23.
Kingston Board of Trade, 14.
Kinkel, Albert, of New York, vice-president of Buffalo convention, 22; chairman of New York Produce Exchange Canal League, 69, 104; letter to, from George B. McClellan, 104.
Kinne, H. M., director of Buffalo Board of Trade, 250, 251, 263.
Kinne & Co., subscription to 100th Regiment fund, 273.
Knapp, Lyman, original member of Buffalo Board of Trade, 251.
Kneeland, Yale, 107 note.
Knowles, George W., of Lyons, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Kolff, Cornelius G., vice-president of Syracuse convention, 17; of Buffalo convention, 22.

Lake Carriers' Association, 317.
Lake Mohonk Conference, 317.
Lake Weighmasters, 302-303.
Langdon, Andrew, address on "Bronze Work in Art and History," 397-402; address as president Buffalo Historical Society, 1908, 403-406; donor of bronze candelabra, 397.
Langdon, Edwin, president Central National Bank, 47.
Languedoc canal, 225.
Laughlin, John, of Buffalo, 164; at Albany meeting, 1901, 166; delegate to Syracuse convention, on committee to confer with Gov. Odell, 167; speaks at hearing on 450-ton canal, 168; calls on Gov. Odell, 169, 170; supports referendum bill of 1902, 170; at Buffalo conference, 1902, 171; delegate to Albany conference, to Republican state convention, 172, 184; presents resolutions of canal people, 173; at Buffalo conference, on committee to meet Gov. Odell, 174; at canal hearing, 175; canal champion, 178.
Lautz, Frederick C. M., of Buffalo, vice-president of Syracuse convention, 17; of Buffalo convention, 22; delegate to Syracuse convention, 164.
Laverack, William, original member of Buffalo Board of Trade, 252.
"Lawrence," boat, 383 note.
Lawton, Albert W., of Auburn, vice-president of Syracuse convention, 16; of Buffalo convention, 22.
Leavitt, James S., bookbindery, 245 note, 252.
Leavitt, Sarah, 246 note.
Leaycraft, J. Edgar, 6.
Le Boeuf, Pa., 218.
Lee, Cyrus P., 290.
Lee, Frank, 273.
Lee, John R., treasurer of Board of Trade, 250, 252; incorporator, 264.
Lee, Oliver, original member of Buffalo Board of Trade, 252.
Lee & Scofield, 273.
Leeds and Liverpool canal, 226.
Lehigh canal, 362-363.
Lehigh Coal & Navigation Company, 362.
Letchworth, Ogden P., vice-president of Buffalo convention, 22; makes address of welcome, 28; president of Buffalo Merchants' Exchange, 166, 329; canal champion, 178.
Lewis, E. A., original member of Buffalo Board of Trade, 252.
Lewis, Thomas D., of Fulton, member of State committee, Syracuse convention, 17; Buffalo convention, 23; calls on Gov. Odell, 170.
Lewis co., N. Y., loss of population, 100; vote on barge canal question, 192.
Lewiston, N. Y., surveys for canal to Schlosser's, 131; carrying trade, 377.
Lincoln, Abraham, appoints engineer to report on canal improvement, 132.
Lincoln, George Z., "Constitutional History of the State of New York," quoted, 189.
Linn, *Capt.* J. B., speech on presentation of flag to 100th Regiment, 276; reply to Col. Dandy, 277.
Liquor Dealers' Association, 69.
Little, Charles B., 107 note.
Little Falls, N. Y., represented at Utica convention, 14; portage, 198, 200; clearing of river, 203; canal locks, 207, 225; tolls, 208; beauty of gorge, 341.
Livermore, E. R., member of committees of New York Produce Exchange, 79.
Livingston co., N. Y., loss of population, 100; vote on barge canal question, 192.
Lockport, N. Y., 346; boat-building, 382-383; gun fired at opening of canal, 393.
Lockport Business Men's Association, 14.
Locks, enlargement of, 133-144.
Loeser, Vincent, on executive committee for banquet to Gov. Roosevelt, 43; member of Board of Managers of Produce Exchange, 107 note.
Logan, James A., attorney for C. & O. Ry. Co., 90.
"Logan," boat, 384 note.
Loomis, Frank, attorney for N. Y. C. & H. R. R. R. Co., 90.
Lothridge, Nelson, & Co., canal shippers, 383.
Love, Thomas C., 386.
Lovering, William, *Jr.*, original member of Buffalo Board of Trade, 252.
Low, Seth, mayor of New York, address at Produce Exchange, 57; at Produce Exchange Canal League, 70; signs appeal to voters, 105.
Lumber Trade Association, New York, 13; coöperates in banquet to Gov. Roosevelt, 42.
Lutt, Jonathan, boat master, 383 note.
Lux, Charles A., of Clyde, 23.
Lyon, James S., 314.

McCarroll, William, speaks at Buffalo convention, 28; signs appeal to voters, 105.
McCausland, John, vice-president of Buffalo convention, 22; makes address, 29; proposes resolution, 31-32.
McClellan, George B., letter to Albert Kinkel, 104; signs appeal to voters, 105.
McClure, David, speaks at Utica convention, 162.
McConnell, William F., tour of state in interest of canals, 4, 19; manages "cart-tail campaign," 74, 178; at canal hearing, 1898, 160; organizes State Commerce convention,

161; member of barge canal committee, 162; assists in struggle for barge canal survey bill, 163; organizes Syracuse convention, 164; at Albany meeting, 1901, 167; member of State committee, Buffalo convention, 169; supports referendum bill of 1902, 170; on committee to solicit aid of Gov. Odell, 171; champion of canal cause, 178.
McCord, Henry D., president of New York Produce Exchange, 84, 107 note.
McDougal, Elliott C., president of Buffalo Chamber of Commerce, 329.
McEchron, William, 189.
McEvoy, P. H., of Little Falls, vice-president of Syracuse convention, 17.
McGee, Henry A., on executive committee for banquet to Gov. Roosevelt, 43.
McGowan, Archibald C., 381.
McGuire, Frank I., 107 note.
McGuire, Horace, of Rochester, vice-president of Syracuse convention, 17.
McGuire, Thomas J., 105.
McIntyre, T. A., of New York Produce Exchange, 79; member of Canal committee of Exchange, 93, 107 note.
Mackinac, lake tonnage, 1844, 253.
McKinley, William, monument in Buffalo, 323.
McKnight, A. H., on executive committee for banquet to Gov. Roosevelt, 43.
McKnight, F. A., original member of Buffalo Board of Trade, 252.
McMahon, V. B., member of board of managers of Produce Exchange, 107 note.
McMurrich, J. B., of Oswego, 175.
Macomb, *Capt.* —, survey of St. Clair Flats, 261 note.
McPherson, John R., 323.
McWilliams, John J., 171; on committee for Albany conference, 172; president of Buffalo Merchants' Exchange, 329.
Madison co., N. Y., loss of population, 100; vote on barge canal question, 192; discovery of hydraulic cement, 345, 356.
Mahany, Rowland B., introduces canal bill in Congress, 159.
Mahr, Julius D., on executive committee for banquet to Gov. Roosevelt, 43.
Main, Henry C., of Rochester, vice-president of Buffalo convention, 23; makes address, 28; calls on Gov. Odell, 169.
Main & Hamburg canal, 254-255.
Main street, Buffalo, 238, 239.
Malcolm, G., subscription to 100th Regiment fund, 273.
Manchester ship canal, 150.
Manhattan Island, commerce, 7.
Mann, Charles J., subscription to 100th Regiment fund, 273; on recruiting committee, 275; on canal committee of Buffalo Board of Trade, 304; president of Board, 328.
Manning, John B., 286; active in organization of Merchants' and Manufacturers' Building Association, 287-288; trustee of Buffalo Merchants' Exchange, 289; on executive committee for National Board of Trade meeting, 314; delegate to Washington meeting, 316; president of Board of Trade, 328.
Manufacturers' Association of New York, 13; proposes resolution at Buffalo convention, 32-33; coöperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49.
Marcellus, Charles, of New London, 381.
Marine hospital, Buffalo, 323.
Maritime Association of the Port of New York, represented at Utica convention, 13; at canal meeting, New York, 1899, 40; at conference, 1900, 41; coöperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49; withdraws from Canal Association, 51.
Market House, Buffalo, 258.
Marks, Marcus M., speaks at Buffalo convention, 28.
Marples, S. S., of New York Produce Exchange, 84, 86.
Marsh, Phineas S., original member of Buffalo Board of Trade, 252; on canal committee, 304; on executive committee for National Board of Trade meeting, 314; delegate to meeting of American Cheap Transportation Association, 316; president of Board of Trade, 328.
Marshall, Henry, of Brooklyn, 46.
Martin, James M., member of Canal committee of Produce Exchange, 107.
Martin, John, boat master, 384 note.
"Mary," boat, 384 note.
Mason, F. Howard, of Buffalo, 171; canal champion, 178; secretary of Merchants' Exchange, 302.
Mason, James, leases boat for opening of Erie canal, 386-387.
Massachusetts, iron and steel industry, 102.
Massey, John G., attorney for C. & O. Ry. Co., 90.
Matthews, J. M., & Co., subscription to 100th Regiment fund, 273.
Maumee, first cargo of wheat from, 374.
Mead, S. Christy, on executive committee for banquet to Gov. Roosevelt, 43; on sub-executive commit-

tee of Canal Association of Greater New York, 47; on committee to consider route of canal, 54; at Albany meeting, 1901, on committee to confer with Gov. Odell, 167, 171; attends conference at Buffalo, 171.
Meade, *Major-Gen.* George G., 278 note.
Meadows, William, trustee of Buffalo Merchants' Exchange, 289.
Meech, Asa B., 378, 379 and note, 393.
Meech, Samuel L., original member of Buffalo Board of Trade, 252.
Memorial of 1816, 211-233.
Memphis, Tenn., 297.
Mercantile Exchange, New York, cooperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49.
"Merchant," steamer, 272.
Merchants' & Manufacturers' Board of Trade, New York, represented at Utica convention, 13; at canal meeting, New York, 1899, 40; cooperates in banquet to Gov. Roosevelt, 42.
Merchants' & Manufacturers' Building Association, 286-288.
Merchants' Association of Catskill, 13.
Merchants' Association of New York, represented at canal meeting, 1899, 40; at conference, 1900, 41; cooperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49.
"Merchants Line" of canal boats, 378.
Middlesex canal, 228.
Mifflin, Samuel, president of Union Canal Company, 359.
Miles, Charles, boat master, 384 note.
Miller, A. D. A., original member of Buffalo Board of Trade, 252.
Miller, H. W., of Utica, 162.
Miller, Henry B., subscription to 100th Regiment fund, 273.
Miller, Nathan L., N. Y. state comptroller, 136.
Milmine, George, member of Canal committee of New York Produce Exchange, 93, 107 note.
Milwaukee Board of Trade, 261.
Mississippi river, navigation, 218-220; system of transportation, 369.
Mitchel, O. M., of New York Produce Exchange, 84, 86.
Mitchell, James H., of Cohoes, member of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23.
Mixer, Knowlton, of Buffalo, vice-president of Syracuse convention, 17; supports referendum bill of 1902, 170.
Mixer & Smith, 273.
Mohawk river, 38; on route of barge canal, 61; early surveys, 197, 199; first canal to Wood Creek, 201-203; improvement of river, 206-207; survey of canal, 339.
Mohawk valley, 340-342.
Monroe, N. Y., represented at Utica convention, 14.
Monroe co., N. Y., vote on barge canal question, 116, 192.
Monroe co., N. Y., *Board of Supervisors*, 14.
Monteith, William, 274.
Montezuma, N. Y., 305, 339.
"Montezuma," boat, 383 note.
Montgomery, Robert, 274.
Montgomery co., N. Y., vote on barge canal question, 192.
Montreal, importance of seaport, 38; commercial rival of New York, 217-220, 222, 371.
Moore, George A., original member of Buffalo Board of Trade, 252.
Morgan, G. H., of Lockport, 170.
Morgan, Samuel, director of Buffalo Board of Trade, 263; earlier of Frankfort, 381.
Morison, George S., at canal hearing, member of Advisory Board of Engineers, 63; remarks at hearing, quoted, 64.
Morrill, Justin S., 323.
Morrison, E. S., at canal hearing, 176.
Morse, C. H., 273.
Morse, John H., of Fort Edward, vice-president of Syracuse convention, 17.
Morse & Nelson, 273.
Morse Telegraph Co., 246.
Morton, *Dr.* —, of Hartford, Conn., 251 note.
Morton, Levi P., governor of New York, commission appointed by, 23, 32; signs $9,000,000 bill, 306.
Mott, John T., of Oswego, member of State committee, Syracuse convention, 17; Buffalo convention, 23; at Albany meeting, 1901, 167.
Munger, H. C., of Herkimer, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Murray, E. F., of Troy, 162, 163.
Murray, Thomas, original member of Buffalo Board of Trade, 252.
Myers, Christopher, boat builder, 382.
Myers, John R., of Rouse's Point, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Myers, P. J., boat builder, 382.
Myres, I., original member of Buffalo Board of Trade, 252.
"N. W. Haverly," boat, 384 note.
"Napoleon," boat, 383 note.

Nash, W. A., member of finance committee of Canal Association of Greater New York, 47.
Nassau co., N. Y., vote on barge canal question, 192.

National Board of Trade, organized, 254; meeting at Buffalo, 314-316; meeting at Washington, 316.
National Council of Commerce, 317.
National Ship-Canal convention, Chicago, 1863, 311.
National Wholesale Lumber Dealers' Association, 49.
Nelson, Absolom, 304.
Nelson, Stewart G., member of finance committee of Canal Association of Greater New York, 47.
"New Haven," boat, 384 note.
New Jersey, iron and steel industry, 102.
New London, N. Y., canal-boat building, 381; large business, 382.
New Orleans, commercial rival of New York, 217-220, 225; Board of Trade organized, 254.
New Rochelle Board of Trade, 14.
New York Board of Fire Underwriters, 42.
New York Board of Marine Underwriters, 42.
New York Board of Trade and Transportation, canal work of, 1-11; calls state convention, 1885, 2; resolutions sent to Gov. Roosevelt, 5, 39; calls State Commerce convention, 1899, 6-9, 12, 39; 1901, 21-22; proposes resolutions, at Buffalo convention, 32; represented at canal meeting, New York, 1899, 40; at conference, 1900, 41; cooperates in banquet to Gov. Roosevelt, 42; in organization of Canal Association of Greater New York, 46; in resolutions favoring barge canal bill, 49.
New York Central & Hudson River Railroad, increase of mileage, 66; elevator charges, 78; competitor of canal, 374.
New York Chamber of Commerce, organized, 254.
New York city, "New York's City's Part in the Reconstruction of the State's Waterways," by G. H. Schwab, 35-75; decline of commerce, 35-36; railroads discriminate against, 77-83; elevators, 78; second port of the world, 136; press supports barge canal project, 178; votes for canal appropriation, 1894, 188; commercial rivalry, 217-220, 371; water supply, 361.
New York city, *Board of Aldermen*, resolutions favoring barge canal, 69.
New York co., vote on barge canal question, 116, 192.
New York Furniture Warehousemen's Association, 14.
New York *Herald*, not favorable to barge canal, 70, 74; cited, 151.
New York Lumber Trade Association, 49.
New York Manufacturers' Association, 40.
New York Produce Exchange, 13; resolutions advocating fourteen-foot canal, quoted, 37-38; meeting to consider canal improvement, 1899, 40; 1900, 41; banquet to Gov. Roosevelt, 42-46; dinner to New York editors, 55; resolutions, Oct., 1902, 57; decision in case against Joint Traffic Association, quoted, 73; "Action of the New York Produce Exchange relative to Railroad Differentials and Canal Enlargement," by H. B. Hebert, 77-108; complaint against Joint Traffic Association, 86-92; conference of Canal committee with State Canal committee, 93-94; committee on canals, presidents, board of managers, 1896-1904, 107 note; E. H. Walker appointed statistician, 370; extracts from reports, 371-372.
New York Produce Exchange Canal League, organized, 69-70; work for canal improvement, 104; meeting of canal committee, 173.
New York Retail Grocers' Union, 13.
New York state, population, 99-100; commerce, 101; iron and steel industry, 102; memorial of citizens in favor of a canal, 1816, 211-233.
New York state, *Advisory Board of Consulting Engineers*, personnel, 63-64.
New York state, *Assembly*, bill providing for survey of canals introduced by H. W. Hill, 41; barge canal bill introduced by C. F. Bostwick, 61; $26,000,000 bill defeated, 168; referendum bill of 1902 defeated, 170-171; bill of 1903 passed, 176.
New York state, *Commerce commission*, 1898, report, cited, 36, 137, 161; guests at New York Produce Exchange banquet, 42; obligations of citizens to, 44; personnel, 160, 189; hearing at Buffalo, 161.
New York state, *Committee on Canals*, 1899-1900, appointed, 5, 20, 39, 108, 130, 137, 160, 181, 190, 307; at canal meeting, New York, 1899, 40, 41; guests at New York Produce Exchange banquet, 42-46; report quoted, 48-49, 111-119; conference with Canal committee of Produce Exchange, 93-94; personnel of committee, 109-110, 160, 190; work of committee, 110-120, 130; recommends enlargement of Erie canal, 138; makes report, 161.
New York state, *Constitutional Convention*, 1894, 158.
New York state, *Legislature*, canal legislation, 3; Davis Canal bill defeated, 53-54; barge canal survey bill passed, 163.
New York state, *Senate*, barge canal bill introduced by G. A. Davis, 61; passes referendum bill of 1902, 170; passes barge canal bill, 1903, 176.
New York state, *State Engineer and Surveyor*, estimate of cost of barge canal, 166, 176.

New York State Canned Goods Packers' Association, 13.
New York State Chamber of Commerce, report of committee on diversion of trade from New York, quoted, 35; represented at canal meeting, New York, 1899, 40; cooperates in banquet to Gov. Roosevelt, 42; resolution advocating barge canal bill, 65.
New York State Hardware Jobbers' Association, 13.
"New York State Canals from 1895 to 1903," by G. H. Raymond, 157-180.
New York *Sun*, opposes barge canal, 70, 74, 177, 178, 191.
New York Tax Reform Association, 13; proposes resolutions at Buffalo convention, 30.
New York *Telegram*, refuses to publish letter favoring canal improvement, 74.
New York *Times*, Berlin correspondent, quoted, 149-150; attitude on the canal question, 188; E. H. Walker, contributor, 370.
New York *Tribune*, quoted, 2-3.
Newbould, Frederick W., original member of Buffalo Board of Trade, 252.
Newcomb, Edward P., of Whitehall, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Newman, John, original member of Buffalo Board of Trade, 252.
Newman, W. H. H., 316.
Newport News, discrimination in freight rates, to, 87.
Niagara, lake tonnage, 1844, 253.
"Niagara," packet, 384 note; leased for celebration of opening of canal, 386-387.
Niagara co., N. Y., vote on barge canal question, 192; meeting of citizens, 1816, 211-212 note; petition to the Legislature, 212-213 note.
Niagara Falls, projects for ship canal, 131-133, 311-313; for locks, 212 note; portage, 218, 377; electric power conveyed to Buffalo, 322.
Niagara river, proposed canal through, 221-224.
Niles, Hiram, 260; incorporator of Buffalo Board of Trade, 264; president, 328.
Niles, H., & Co., 274.
Nims & Gibson, 273.
Nine Million Dollar Canal Act, 3; bill signed by Gov. Morton, 306.
Nissen, Ludwig, member of committee of New York Board of Trade and Transportation, 6; of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23, 169; delegate to Republican state convention, 172.
Nixon, Lewis, speaks at Buffalo convention, 29; proposition to enlarge locks without enlarging canal prism, 53; speaks at meeting of New York Produce Exchange Canal League, 70; at Canal Association dinner, 72; guest of G. K. Clark at dinner, 98; signs appeal to voters, 105.
Nixon, S. Fred., speaker of the Assembly, 43; opposition to barge canal survey bill, 163.
Noble, Alfred, member of Advisory Board of Engineers, 64.
Nolton, H. G., trustee of Buffalo Merchants' Exchange, 289.
Norfolk, Va., discrimination in railroad rates to, 87.
Norris, E. B., of the State Grange, 170.
North Side Board of Trade, New York, 49.
North Bay, N. Y., boat-building, 382.
North Tonawanda, N. Y., represented at Utica convention, 14.
Norton, Ebenezer F., member of Buffalo Harbor Company, 241.
Norwich, N. Y., 383 note.
Nottingham, Edward, of Syracuse, 17.
Noye, John T., original member of Buffalo Board of Trade, 252; incorporator, 264.
Noye, Richard K., 291.
Noyes, *Dr.* Josiah, 354.

Oakes, Frank S., of Cattaraugus, member of State committee, Syracuse convention, 17; Buffalo convention, 23; member of canal committee, Utica convention, 162; canal champion, 178.
O'Brien, T. J., attorney for Grand Rapids & Indiana R. R. Co., 90.
Odell, Benjamin B., *Jr.*, governor of New York, 48; guest of G. K. Clark at dinner, 52, 97-98; message of 1902, 53, 169; conference with committee of Canal Association, 60; letter to H. B. Hebert, 99; appoints Advisory Board of Consulting Engineers, 130; address at Buffalo, cited, 140, 147, 148; favors Seymour plan, 166; opposed by Buffalo Merchants' Exchange, 167; speaks before Buffalo Merchants' Exchange, 169; resolutions of Merchants' Exchange submitted to him, 170; favors Lake Ontario route, 174; conference with canal friends, 174; quoted by J. I. Platt as opposed to canal legislation, 175; denies statement, 176; signs barge canal bill, 176; message of 1901, reëlected governor, 184; guest of Buffalo Merchants' Exchange, 324.
Oelrichs & Company, letter to H. B. Hebert concerning differential rates, 88-89.
Ohio, iron and steel industry, 102; canal construction, 256.
"Ohio," boat, 384 note.
Ohio basin, 255, 321.
Olcott, N. Y., canal through, considered, 172, 174.

Old Home Week, Buffalo, 1907, 326.
O'Malley, Edward O., of Buffalo, 168; supports referendum bill of 1902, 170; at Buffalo conference, 172; at canal hearing, 176; canal champion, 178.
One hundredth Regiment, New York volunteers, adopted by the Buffalo Board of Trade, 272-279.
Oneida, N. Y., represented at Utica convention, 14; on route of Erie canal survey, 337.
Oneida Chamber of Commerce, 14.
Oneida co., N. Y., vote on barge canal question, 192; prominent citizens, 334-335.
Oneida co., N. Y., *Board of Supervisors*, 14.
Oneida Historical Society, 364.
Oneida lake, on route of barge canal, 61; canal to Mohawk river, 201-202; to Cayuga lake, 204-205; boat-building, 382.
Oneida river, on route of barge canal, 61.
Oneida-Seneca route, favored by Canal Association, 55.
"Ontario," packet, 384 note.
Onondaga co., N. Y., vote on barge canal question, 116, 192.
Onondaga lake, 337.
Onondaga river, 205.
Ontario co., N. Y., vote on barge canal question, 193.
Ontario, Lake, canal to Lake Oneida, 205; navigation dangerous, 222; fall from Lake Erie, 223.
"Ontario route," opposed by Canal Association, 55; favored by Gov. Odell, 174; objections to, 221-224.
Orange co., N. Y., vote on barge canal question, 193.
Order of Acorns, advocates canal improvement, 70.
Oriskany, battle of, 341.
Oriskany Falls, N. Y., represented at Utica convention, 14.
Orleans co., N. Y., loss of population, 100; vote on barge canal question, 193.
Ormiston, Thomas W., of New York, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Orr, E. A., of New York Produce Exchange, 79.
Orr, Fred M., of Troy, 23.
Oswego, N. Y., represented at Utica convention, 14; lake tonnage, 1844, 253; opposes plan of improving St. Clair Flats, 261.
Oswego Board of Trade, 13, 254.
Oswego canal, improvement recommended by State Commerce convention, 15; bill providing for survey drawn, 41; improvement provided for in barge canal bill, 61-62, 130; estimated cost of improvement, 117-118; not included in referendum bill of 1902, 170.
Oswego co., N. Y., loss of population, 100; vote on barge canal question, 193.
Oswego Lumbermen's Exchange, 14.
Oswego river, difficulty of navigation, 224; boat-builders from, 382.
Otis, *Major* C. N., letter to, from G. S. Hazard, 278.
Otsego co., N. Y., loss of population, 100; vote on barge canal question, 193.
Ottawa, Ontario, meeting of Dominion Board of Trade, 314.
Owasco lake, 337.

Paige, Nathaniel, of New London, 381.
Paint, Oil and Varnish Club, New York, 13; joins in resolutions favoring barge canal bill, 50.
Palfrey, *Capt.* Carl F., engineer, 132.
Palmer, George, original member of Buffalo Board of Trade, 252; incorporator, 264; estate of, 280.
Palmer, Rufus C., 243; original member of Buffalo Board of Trade, 252; subscription to 100th Regiment fund, 273.
Palmer, Stephen, boat master, 383 note.
Pan-American Exposition, 297.
Paris Hill, N. Y., 249 note.
Parke, Fenton M., secretary of Buffalo Chamber of Commerce, 302.
Parker, Forrest H., president of Produce Exchange Bank, 47; appoints committee on freight rates, 79.
Parker, James F., of New York Produce Exchange, 84, 86; member of board of managers, 107 note.
Parker, Jason, vice-president of Buffalo Board of Trade, 263; incorporator, 264; member of committee on inspection of grain, 270; subscription to 100th Regiment fund, 273; president of Buffalo Board of Trade, 328.
Parr, Benjamin, 107 note.
Parsons, P. L., original member of Buffalo Board of Trade, 252.
Parsons, William H., president of Board of Trade and Transportation, 6; report of Syracuse convention, 19-21.
Partridge, John N., at banquet to Gov. Roosevelt, 43; member of State Committee on Canals, 110, 190.
Patchin, A. D., original member of Buffalo Board of Trade, 252.
Patrick, Henry, of New London, 381.
"Patrick Henry," boat, 384 note.
Patterson, F. W., 273.
Payne, Sereno E., bill in Congress for canal appropriation, 133.
Peabody, J. N., original member of Buffalo Board of Trade, 252.
Peacock, William, surveyor, 346.
Pearl street, Buffalo, 242.
Pease, John, original member of Buffalo Board of Trade, 252.
Pease, Sheldon, & Co., 274.

Peck, Wilbur S., vice-president of Buffalo convention, 23.
Peck, William E., original member of Buffalo Board of Trade, 252.
Peckham, B. P., boat master, 384 note.
Peckham, Cyrus, of New London, 381.
Pendleton, N. Y., 384 note, 393.
Pennsylvania, growth in population, 101; iron and steel industry, 102, freight discriminations, 145; canal development, 256.
Pennsylvania canal, 256.
Pennsylvania Railroad, improvements, 66.
Perrin, Grenville, of New York Produce Exchange, 84.
Perrine, Henry E., subscription to 100th Regiment fund, 272, 274.
Perry, George T., boat master, 383 note.
Perry, *Commodore* Oliver H., 393.
Persons, Henry H., of Buffalo, 171.
Peters, Theodore C., original member of Buffalo Board of Trade, 252.
Petrie, William, 381.
Petrie, Wm., & Co., contribution to 100th Regiment fund, 273; canal shippers, 383.
Pettit, Silas W., attorney for Trades League of Philadelphia, 90.
Pfarrius, E., of New York Produce Exchange, 84, 86.
Philadelphia, freight rates to, 77, 81-83, 85, 87; commercial rival of New York, 371.
Philadelphia Board of Trade, organized, 254.
Philadelphia Commercial Museums, 297.
Philadelphia *Record*, cited, 145.
Phoenix, N. Y., boat-building, 382.
Pierce, Henry J., 326; president of Buffalo Chamber of Commerce, 329.
Pierce, Horace G., speaks at Buffalo convention, 28.
"Pilot Line" of canal boats, 378.
Pinney, Austin, original member of Buffalo Board of Trade, 252.
Pittsburgh, Pa., commercial position, 1816, 218; Board of Trade organized, 254.
Pixley, Henry D., vice-president of Buffalo convention, 23.
Platt, John I., speaks at Utica convention, 9, 162; opposes referendum bill of 1902, 170; opposes canal improvement plank in Republican platform, 173; at canal hearing, 175; quotes Gov. Odell as opposed to canal legislation, 175; at anti-canal state convention, 177.
Platt, Jonas, state senator, 334; connection with early canal legislation, 349-350.
Platt, Thomas C., 179.
Plimpton, L. K., original member of Buffalo Board of Trade, 252; incorporator, 264; subscription to 100th Regiment fund, 273; on recruiting committee, 275.
Pond, Ashley, attorney for Michigan Central R. R. Co., 90.
Port Morris, 7.
Porter, Augustus, of Niagara Falls, 377.
Porter, Peter B., of Black Rock, 377.
Porter, Barton & Co., 377-378.
"Portland," boat, 384 note.
Potter, Heman B., member of Buffalo Harbor Company, 241.
Potter, Orlando B., chairman executive committee of Canal Improvement Union, 2.
Poughkeepsie Board of Trade, 9, 14.
Pratt, Hiram, 378, 393.
Pratt, Lucius H., original member of Buffalo Board of Trade, 252.
Pratt, Pascal P., original member of Buffalo Board of Trade, 252; trustee of Merchants' Exchange, 289; at opening of new building, 290.
Pratt, Samuel H., original member of Buffalo Board of Trade, 252.
Pratt & Meech, 378; convey guns and ordnance from Erie to Buffalo, 393.
Pratt Bros., 382.
Pratt's Landing, 382.
Prescott, William, original member of Buffalo Board of Trade, 252.
Presque Isle (Erie), Pa., naval depot, 392.
Press of New York in the canal campaign, 187-193.
Prime slip, 245, 254, 255.
Prime street, Buffalo, 239, 240, 242; site of first "Merchants' Exchange," 244-246.
Pritchard, Emilio, 107 note.
Prosser, E. S., subscription to 100th Regiment fund, 273; on recruiting committee, 275.
Pu Lun, Prince, guest of Buffalo Merchants' Exchange, 324.
Purdy, Lawson, speaks at Buffalo convention, 28.
Purdy, Samuel, commission merchant, 243; original member of Buffalo Board of Trade, 252.
Putnam, George L., member of finance committee of Canal Association of Greater New York, 47.
Putnam co., N. Y., loss of population, 100; vote on barge canal question, 193.

Queens co., N. Y., vote on barge canal question, 116, 193.
Quinby, Franklin, on executive committee for banquet to Gov. Roosevelt, 43; on finance and sub-executive committees of Canal Association of Greater New York, 47; on committee to confer with Joint Traffic Association, 84, 86; on Canal committee of Produce Exchange, 93, 107 note; at Albany meeting, 1901, 167.

Rafter, George W., speaks at Buffalo convention, 28.

Railroads, competition with canals, 36, 37, 141; improvements since 1860, 66; differential rates, 77-93.
Rainey, Hamilton, original member of Buffalo Board of Trade, 252; incorporator, 264.
Ramsberger, Samuel J., supports referendum bill of 1902, 171.
Ranney, O. W., original member of Buffalo Board of Trade, 252; member of committee for improving St. Clair Flats, 260.
Raymond, George H., of Buffalo, member of State committee, Syracuse convention, 17; Buffalo convention, 23, 169; delegate to canal conference, New York, 50; secretary of Canal Improvement State Committee, 102; congratulatory message to H. B. Hebert, 105; "New York State Canals from 1895 to 1903," 157-180; plan for canal enlargement, 158-159; at canal hearing, 1898, 160; 1899, 161; delegate to Utica convention, makes address, member of canal committee, 162; assists in struggle for barge canal survey bill, 163; speaks at Syracuse convention, 164; member of canal committee of Buffalo Merchants' Exchange, 164, 166, 182; of committee to solicit funds, 165; speaks before various boards of trade, 165-166; at Albany meeting, 1901, 166; delegate to Syracuse convention, 1901, on committee to confer with Gov. Odell, 167; speaks at hearing on 450-ton canal, 168; visits New York, calls on Gov. Odell, 169, 170; supports referendum bill of 1902, 170; on committee to solicit support of Gov. Odell, 171; at Buffalo conference, 172, 174; delegate to Albany conference, to Republican state convention, 172, 173; on committee to meet Gov. Odell, 174; at Albany conference, at canal hearings, 175, 176; secretary of Canal Improvement State committee, 176; canal champion, 178.
Real Estate Exchange, New York, 42, 49.
"Red Rover," boat, 383 note.
Redhead, E. R., of Fulton, vice-president of Syracuse convention, 17; of Buffalo convention, 22; calls on Gov. Odell, 169.
Reed, Isaac H., 79.
Rensselaer co., N. Y., loss of population, 100; vote on barge canal question, 193.
Republican Party, platform calling for canal enlargement, 56; state convention, 1902, 172, 173.
Retail Lumber Dealers' Association of the State of New York, 13.
Reynolds, H. S., of Poughkeepsie, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Rice, Edward C., treasurer of Produce Exchange, 107 note.
Rich, G. B., original member of Buffalo Board of Trade, 252.
Richardson, George, 273.
Richmond, Alonzo, 304, 319; president of Buffalo Board of Trade, 328.
Richmond, Dean, at Buffalo Board of Trade banquet, 267; subscription to 100th Regiment fund, 274.
Richmond, Henry A., on canal committee of Buffalo Board of Trade, chairman of reception committee for National Board of Trade meeting, 314.
Richmond, Jewett M., subscription to 100th Regiment fund, 273; on recruiting committee, 275; president of Buffalo Board of Trade, 281, 328; chairman of building committee, 288; trustee of Merchants' Exchange, 289.
Richmond co., N. Y., vote on barge canal question, 193.
Richmond's elevator, 258.
Rickard, Michael, member of State Board of Railway Commissioners, 319.
Riley Bros., boat builders, 383.
Ritchie, H. B., original member of Buffalo Board of Trade, 252.
River and Harbor convention, Chicago, 1847, 262.
Roberts, George B., president of Pennsylvania Railroad, 80.
Roberts, Elijah P., of New London, 381.
Roberts, Nathan S., surveyor, 335, 344-345, 346.
Roberts, Thomas P., president of Union Canal Company, 359.
Roberts, W. Milnor, engineer, letter regarding Canvass White, quoted, 359-361; engineer on Lehigh canal, 363.
Robinson, A., original member of Buffalo Board of Trade, 252; incorporator, 264.
Robinson, Herman, signs appeal to voters, 105.
Robinson, John W., president of Buffalo Chamber of Commerce, 329.
Robinson, *Dr.* Samuel Adams, 6.
Rochdale canal, 226.
Rochester, N. Y., opposes barge canal, 177, 190-191; boat-building, 382; boats owned at, 383-384 note.
"Rochester," packet, 383 note.
Rochester Chamber of Commerce, 13; proposes resolutions at Buffalo convention, 30; opposition to barge canal, 177, 191.
Rochester *Democrat and Chronicle*, opposes barge canal, 191.
Rochester *Post Express*, opposes barge canal, 191.
Rochester Transportation Company, 382.
Rock street, Buffalo, 239.

Rockland co., N. Y., vote on barge canal question, 193.
Rogers, Henry W., speaks at Board of Trade banquet, 268; visits St. Louis, 311.
Rogers, William, *Jr.*, boat master, 383 note.
Rogers, William A., of North Tonawanda, member of State committee, Syracuse convention, 17; Buffalo convention, 23; delegate to canal conference, New York, 50; at canal hearing, 1899, 161; member of canal committee of Buffalo Merchants' Exchange, 164; of committee to confer with New York canal people, 169; calls on Gov. Odell, 169; at Buffalo conference, delegate to Albany conference, 172.
Rome, N. Y., represented at Utica convention, 14; survey of canal through, 339; important boat-building point, 381.
Rome & Watertown Railroad, 381.
Romer, Alfred, on executive committee for banquet to Gov. Roosevelt, 43; member of Canal committee of Produce Exchange, 93, 107 note; at canal hearing, 1898, 160.
Roop, Henry, 264.
Roosevelt, Theodore, governor of New York, resolutions addressed to, by New York Board of Trade, 5, 20; appoints Canal committee, 5, 20, 39, 92, 108, 130, 137, 160, 181, 190, 307; banquet in his honor, 42-46; address quoted, 44-45; report of State Canal committee to, 94, 97; supports barge canal project, 107, 166; guest of Buffalo Merchants' Exchange, 324.
Roosevelt Commission. See New York state, *Committee on Canals.*
Root, E., original member of Buffalo Board of Trade, 252.
Root, Erastus, of Otsego co., 351.
Root, Francis H., 290.
Root, Henry, 379.
Rose, Ira M., of Buffalo, 164.
Rotterdam, N. Y., 205.
Rumrill, S. H., 273.
Rumsey, Aaron, original member of Buffalo Board of Trade, 252.
Rumsey, Bronson C., 264.
Russell, G., original member of Buffalo Board of Trade, 252.
Russell, Henry, attorney for Michigan Central R. R. Co., 90.
Russia, canals, 150.
Ryan, John H., of Medina, congratulatory message to H. B. Hebert, 106.
Ryan, Thomas M., at canal hearing, 1899, 161; at meeting of canal committee of Buffalo Merchants' Exchange, 166; canal champion, 178.

Sackett's Harbor, lake tonnage, 1844, 253.
St. Clair Flats canal, 258-262.
St. Clair Flats convention, 261.
St. John, John R., boat master, 384 note.
St. Johnsville, N. Y., represented at Utica convention, 14.
St. Joseph street, Buffalo, 239.
St. Lawrence co., N. Y., vote on barge canal question, 116, 193.
St. Lawrence County Dairymen's Board of Trade, 14.
St. Lawrence river, route to ocean, 217; ice locked, 219.
St. Paul's Church, Buffalo, 251 note.
Salina, N. Y., 338, 384 note.
Salisbury, Guy H., letter to, from Orlando Allen, 392-394.
Salmon river, 205.
Salt Point, N. Y., 338, 378.
Saltar, Jr., original member of Buffalo Board of Trade, 252.
Sampson, *Admiral* William T., guest of Buffalo Merchants' Exchange, 324.
"Samson," steamboat, 257.
Sanderson, Oswald, on executive committee for banquet to Gov. Roosevelt, 43; on finance committee of Canal Association of Greater New York, 47; member of Board of managers of Produce Exchange, 107 note.
Sandrock, George, 283; member of Board of Trade committee on grade crossings, 309; president of Board, 328.
Sandusky, Ohio, 219; lake tonnage, 1844, 253.
Sandytown, 388.
Saratoga, N. Y., Republican state convention, 172-173; Democratic state convention, 173.
Saratoga co., N. Y., vote on barge canal question, 193.
Saugerties Board of Trade, 14.
Sawyer, George P., vice-president of Buffalo convention, 22; supports referendum bill of 1902, 170; at Buffalo conference, 172, 174; delegate to Albany conference, 172; to Republican state convention, 173; on committee to meet Gov. Odell, 174; speaks at opening of Buffalo Board of Trade building, 291.
Sawyer, James D., subscription to 100th Regiment fund, 273; member of committee on reorganization of Buffalo Board of Trade, 282; of canal committee, 304; of executive committee for National Board of Trade meeting, 314; president of Buffalo Board of Trade, 328.
Scatcherd, James N., trustee of Buffalo Merchants' Exchange, 289; speaks at opening of new building, 291; president of State Board of Trade, 317; of Buffalo Merchants' Exchange, 328, 329.
Scatcherd, John W., at banquet to Gov. Roosevelt, 43; member of State Committee on Canals, 110, 160, 190; at meeting of canal com-

mittee of Buffalo Merchants' Exchange, 166; canal champion, 178.
Schaeffer, Henry L., 288.
Schenectady, N. Y., represented at Utica convention, 14; early improvement of navigation between Schenectady and Fort Schuyler, 197-208; boats owned at, 384 note.
Schenectady co., N. Y., vote on barge canal question, 193.
Scherp, Henry, vice-president of Buffalo convention, 22.
Schieren, Charles A., of Brooklyn, vice-president of Buffalo convention, 22; speaks at meeting of New York Produce Exchange Canal League, 70, 104; chairman of Canal Improvement State Committee, 74, 178; guest of G. K. Clark at dinner, 98; signs appeal to voters, 105; chairman of Commerce Commission, 160, 189; canal champion, 178.
Schley, *Admiral* Winfield Scott, guest of Buffalo Merchants' Exchange, 324.
Schlosser's landing, 131, 378.
Schoellkopf, Jacob F., president of Buffalo Board of Trade, 287; trustee of Merchants' Exchange, 289; speaks at opening of new building, 290.
Schoharie, N. Y., improvement of river to Schenectady, 204.
Schoharie co., N. Y., loss of population, 100; vote on barge canal question, 193.
Schoharie creek, 204, 342, 343.
Schuyler, Philip, president of Western Inland Lock Navigation Company, 197 note, 208.
Schuyler co., N. Y., loss of population, 100; vote on barge canal question, 193.
Schuyler, Fort. See Fort Schuyler.
Schuylkill Navigation Company, 361.
Schwab, Gustav H., vice-president of Syracuse convention, 17; of Buffalo convention, 22; portrait, 34; "New York City's part in the reconstruction of the State's Waterways," 35-75; member of canal committee of New York Produce Exchange, 37; chairman of executive committee for banquet to Gov. Roosevelt, 43; member of sub-executive committee of Canal Association of Greater New York, 47; of committee to consider route of canal, 54; of committee to confer with Gov. Odell, 60; of legislative committee, 63; chairman of Canal Improvement State Committee, 68, 102, 176; cables James Gordon Bennett regarding canal, 70; goes to Europe, 74; member of Canal committee of Produce Exchange, 93, 107 note; guest of G. K. Clark at dinner, 98; signs appeal to voters, 105; speaks at Syracuse convention, 164; calls on Gov. Odell, 169; supports referendum bill of 1902, 170; attends conference at Buffalo, 171, 174; at Albany, 175; attends canal hearing, 175; canal champion, 178.
Scott, John, forwarder, 292, 378.
Scott, William, delegate to Utica convention, 162.
Scroggs, *Gen.* Gustavus A., 276.
Sears, Frank A., 280.
Sears, Richard, original member of Buffalo Board of Trade, 252.
Seibold, Jacob, original member of Buffalo Board of Trade, 252.
Seligman, I. N., guest of G. K. Clark at dinner, 98.
Selsmer, E. P., 274.
"Seneca Chief," boat, first trip through Erie canal, 390-391.
Seneca co., N. Y., loss of population, 100; vote on barge canal question, 193.
Seneca lake, 382.
Seneca river, 38; on route of canal, 61, 339.
Seneca street, Buffalo, 242; banking center, 285; Board of Trade building on, 288-291.
Severance, Frank H., "Historical Sketch of the Board of Trade, the Merchants' Exchange and the Chamber of Commerce of Buffalo," 235-329; reports as secretary-treasurer Buffalo Historical Society, 1907-08, 407-414.
Sexton, Jason, original member of Buffalo Board of Trade, 252.
Seymour, H. R., original member of Buffalo Board of Trade, 252.
Seymour, H. S., original member of Buffalo Board of Trade, 252.
Seymour, Horatio, president of Canal Improvement Union, death, 2; letter to J. W. Higgins quoted, 58-59; canal advocate, 145.
Seymour, Horatio, *Jr.*, plan for canal improvement, 158, 166, 167, 182.
Seymour & Wells' elevator, 258.
Shattuck, Henry, boat-builder, 382.
Shaver, Jacob, *Jr.*, 304.
Shayne, C. C., vice-president of Syracuse convention, 17; at banquet to Gov. Roosevelt, 43; member of Commerce Commission, 160, 189.
Sheldon, F. L., 273.
Shelton, *Rev.* William, rector of St. Paul's, 251 note.
Sheltons, 251 note.
Shepard, John D., director of Buffalo Board of Trade, 250, 252.
Shepard, Sidney, original member of Buffalo Board of Trade, 252; incorporator, 264.
Shepard, Walter J., secretary of Buffalo Chamber of Commerce, 302.
Sherburne, N. Y., represented at Utica convention, 14.
Sherman, Isaac, original member of Buffalo Board of Trade, 252.
Sherman, Richard H., 264.
Sherman, *Lieut.-Gen.* W. T., 278 note.

Sherwood, Albert, subscription to 100th Regiment fund, 273; president of Buffalo Board of Trade, 328.
Ship canal, project rejected by State Committee on Canals, 113-114; agitation for ship canal, 122-124, 139; cost estimated by Board of Engineers on Deep Waterways, 124; by Col. Symons, 128; routes considered, 127; cost of transportation through, 128; survey for canal from Lake Erie to Lake Ontario, 1835, 131; project favored in Rochester, 191.
Shumway, Horatio, 252.
Shumways, 251 note.
Sidway, Jonathan, 378.
Sielcken, Hermann, on executive committee for banquet to Gov. Roosevelt, 43.
Sill, Henry S., 299.
Simons, Nathan C., 304.
Sinclair, John, member of committee of New York Produce Exchange, 79.
Six Mile creek, 203.
Sizer, H. H., original member of Buffalo Board of Trade, 252.
Skaneateles lake, 305, 337, 338.
Sloan, George B., of Oswego, 9; temporary chairman of Utica convention, 1899, 13; reports from committee on canals, 15-16; member of State committee, Syracuse convention, 17; Buffalo convention, 23; speaks at Utica convention, 162; at Syracuse convention, 164, 182; at Albany meeting, 1901, 167.
Sloan, *Capt.* James, 379 and note.
Small, Jerry, subscription to 100th Regiment fund, 274.
Smith, Alexander R., at banquet to Gov. Roosevelt, 43; member of Commerce Commission, 160, 189; supports referendum bill of 1902, 170.
Smith, E., original member of Buffalo Board of Trade, 252.
Smith, Edward B., trustee of Buffalo Merchants' Exchange, 289.
Smith, G. Waldo, chairman of Committee of New York Board of Trade and Transportation, 6, 12; member of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23, 169.
Smith, George W., of Herkimer, 162.
Smith, H. A., director of Buffalo Board of Trade, 263; incorporator, 264.
Smith, Hiram M., lake weighmaster, 302.
Smith, Howard J., delegate to second N. Y. Commerce convention, 164; at meeting of canal committee of Buffalo Merchants' Exchange, 166; delegate to Syracuse convention, 167; supports referendum bill of 1902, 170; at Buffalo conference, 171; canal champion, 178; "Reminiscences of the Barge Canal Campaign," 181-185; gives dinner for leaders of canal fight, 185.
Smith, Isaac, boat master, 384 note.
Smith, James R., 299, president of Buffalo Merchants' Exchange, 328.
Smith, Junius S., subscription to 100th Regiment fund, 273; lake weighmaster, 302.
Smith, L. Porter, at canal hearing, 1899, 161; member of canal committee of Buffalo Merchants' Exchange, 164; canal champion, 178; furnishes facts for articles on canal question, 181; urges appointment of canal committee of Buffalo Merchants' Exchange, 183; "Notes on the Canal Forwarding Trade," 381-384.
Smith, Marshall, 388.
Smith, Solomon Porter, merchant of New London, 381.
Smith, T. Guilford, 171.
Smith, Walter D., boat master, 384 note.
Smith & Macy, 292.
Smith, L. Porter, & Co., canal shippers, 383.
Smythe, William G., of New York, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Sober, J. W., boat master, 384 note.
Spaulding, E. G., 280; at opening of Board of Trade building, 290.
Spaulding, S. S., treasurer of Merchants' and Manufacturers' Building Association, 288.
Spence, Lewis H., on executive committee for banquet to Gov. Roosevelt, 43.
Sprague, E. Carleton, speaks at opening of Buffalo Merchants' Exchange building, 291; address quoted, 328.
Sprague, Noah P., original member of Buffalo Board of Trade, 252.
Squaw island, 388.
Stagg, Hy Rutgers, 386.
"Star," boat, 384 note.
Stark, L. J. N., 301.
State Commerce conventions. See Conventions.
Staten Island, 7.
Staten Island Chamber of Commerce, represented at Utica convention, 14; at canal meeting, New York, 1899, 40; joins in resolutions favoring barge canal bill, 50.
Stationers' Board of Trade, New York, 13.
Steel industry, 101-102.
Steele, A. B., of Herkimer, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Steele, Oliver G., original member of Buffalo Board of Trade, 252.
Sterling's elevator, 258.
Sternberg, P. L., 264; subscription to 100th Regiment fund, 273.
Steuben co., N. Y., vote on barge canal question, 116, 193.

Stevens, Asa, 79.
Stevens, James G., 273.
Stevenson, *Prof.* John James, of New York University, speaks at Produce Exchange Canal League meeting, 70, 104.
Stewart, John A., secretary of Canal Improvement State Committee, 102, 176.
Stewart, Perez M., at banquet to Gov. Roosevelt, 43; letter of thanks to, from New York Produce Exchange, 46.
Stewart, Graves & Co., 273.
Stimpson & Grant, 273.
Stockton, *Commodore* Robert F., 363.
Stone, Elias, boat master, 384 note.
Stony Point, breakwater, 323.
Storrs, *Gen.* Lucius, 340.
Storrs, Juba, & Co., 340.
Stowits, George H., "History of the 100th Regiment of New York State Volunteers," cited, 276 note.
Straus, Oscar S., signs appeal to voters, 105.
Stringer, George A., "An Appreciation of the Work of Elmore H. Walker," 367-372; "George S. Hazard: a Tribute," 373-375.
Stringham, Joseph, original member of Buffalo Board of Trade, 252.
Strong, E. W., attorney for B. O. S. W. Ry. Co., 90.
Strong, W. L., ex-mayor of New York, 47.
Strong, W. R., subscription to 100th Regiment fund, 274.
Stuart, C. B., engineer, 132; letter to, from Simon Guilford, quoted 358-359.
Suez canal, traffic, 138.
Suffolk co., N. Y., vote on barge canal question, 193.
Sullivan, J. P., of Buffalo, delegate to Utica convention, 162.
Sullivan co., N. Y., vote on barge canal question, 193.
Sumner, Charles P., of New York Produce Exchange, 84, 86.
Swan, Adam, canal shipper, 383.
Swan & Thayer, 273.
Sweet, Charles A., petition for reorganization of Buffalo Board of Trade, 282; trustee of Merchants' Exchange, 289; president of Board of Trade, 328.
Sweet, Elnathan, member of Advisory Board of Engineers, 63.
Swett, Albert L., of Medina, 23.
Sylvanbeach, N. Y., canal meeting, 1903, 69.
Symons, *Col.* Thomas W., at banquet to Gov. Roosevelt, 43; assists in drafting barge canal bill, 57, 58, 61; at canal hearing, 63; member of Advisory Board of Consulting Engineers, 64, 130-131; speaks at Canal Association dinner, 71-72; member of State Committee on Canals, 109, 130, 160, 190; analysis of methods of canal transportation, 115; "The United States Government and the New York State Canals," 121-134; report on bill for widening locks of Erie canal, 125, 159-160; makes estimate of cost of ship canal, 126-128; submits report, 129; delegate to Syracuse convention, makes address, 164; on committee for Albany conference, 172; at Albany conference, at canal hearing, 175; canal champion, 178.
Syracuse, N. Y., convention, 1886, 2, 305; represented at Utica convention, 14; convention, 1900, 16-21, 39, 182; 1901, 21, 167, 183; conference of editors, 1903, 68; opposition to barge canal, 190; waterworks bill, 305; boat-builders, 382.
Syracuse Chamber of Commerce, 13.

Targett, Alfred S., of Cohoes, vice-president of Syracuse convention, 17; of Buffalo convention, 22.
Tanner, H., original member of Buffalo Board of Trade, 252.
Taxation, for barge canal, 118-119.
Taylor, Edward I., of Lockport, speaks at Buffalo convention, 29.
Taylor, Samuel, *Jr.*, 107 note.
"Telegraph," boat, 383 note.
Tennant, Willis H., of Mayville, member of State committee, Syracuse convention, 17; Buffalo convention, 23, 169; speaks at Buffalo convention, 28; proposes resolution, 29; speaks at Syracuse convention, 164; on committee to confer with Gov. Odell, 167; to attend Republican state convention, 172; canal champion, 178.
Terminal facilities, improvement needed, 151-152.
Terrace, Buffalo, 238, 241.
Tesla, Nikola, 323.
Thayendanegea (Joseph Brant), 342-343.
Thayer, Charles, canal shipper, 383.
Thayer, William, boat master, 383 note.
Thomas, Calvin F. S., 252.
Thomas, Edwin, original member of Buffalo Board of Trade, 252.
Thomas, Evan, on executive committee for banquet to Gov. Roosevelt, 43.
Thompson, Harry, 377, 379 and note.
Thompson, Sheldon, original member of Buffalo Board of Trade, 252; engaged in forwarding business, 377; chairman of Black Rock committee on opening of canal, 386.
Thompson, S., & Co., 292, 377, 378, 379.
Thompson's Cut. See Prime's Slip.
Thompson, W. A., original member of Buffalo Board of Trade, 252.
Three Rivers, N. Y., canal meeting, 1903, 69.
Thurber, F. B., 6; on executive committee for banquet to Gov. Roose-

velt, 43; supports referendum bill of 1902, 170.
Thurman, Allen G., member of commission on railroad rates, 77, 80.
Thurstone, William, annual statement of trade and commerce of Buffalo, 269; cited, 304 note; secretary of Board of Trade, 287, 309; distinguished services, 300-301; letter to, from Roscoe Conkling, 305 note; delegate to meeting of National Board of Trade, 316.
Tiemeyer, George H., of New York, vice-president of Syracuse convention, 17.
Tierney, E. M., of Elmira, 17.
Tiffany, Louis, & Co., tablet designed by, 364-366.
Tifft, George W., original member of Buffalo Board of Trade, 252; president of Merchants' and Manufacturers' Building Association, 288.
Tifft, George W., president of Merchants' and Manufacturers' Building Association, 288.
Tilden, Samuel J., canal advocate, 145.
Tioga co., N. Y., loss of population, 100; vote on barge canal question, 193.
Todd, Augustus, canal-boat master, 383 note.
Toledo Board of Trade, organized, 254.
Tolls, abolished, 1; report of subcommittee of Canal Association opposing tolls, 58-60.
Tompkins co., N. Y., vote on barge canal question, 193.
Tonawanda, N. Y., 384 note, 393.
Tonawanda creek, 346.
Tonawanda Lumberman's Association, 14.
Toomey, Andrew J., 107 note.
Toomey, Daniel, of Dunkirk, 178.
Townsend, Charles, member of Buffalo Harbor Company, 241; of firm of Townsend & Coit, 377.
Townsend & Coit, 377-378, 379.
Tracy, Albert H., member of Buffalo Harbor Company, 241.
Treat, Curt M., secretary of Bureau of Conventions and Industries, 323.
Tremain, Henry E., of Lake George, vice-president of Syracuse convention, 17.
Trenor, John J. D., 47; work among the Italians, 69; member of Canal committee of Produce Exchange, 107 note; at Buffalo conference, 174; at Albany conference, 175; canal champion, 178.
Troy, N. Y., represented at Utica convention, 14; boats owned at, 384 note.
"Troy & Erie Line" of canal boats, 378.
Truesdell, John P., member of canal committee of New York Produce Exchange, 37, 93, 107 note; of executive committee for banquet to Gov. Roosevelt, 43; of finance committee of Canal Association of Greater New York, 47; of committee to confer with Joint Traffic Association, 84, 86; speaks at Utica convention, 162.
Trump, E. N., of Syracuse, 17.
Tuttle, D. N., director of Buffalo Board of Trade, 263.
Tuttle, D. W., subscription to 100th Regiment fund, 273.
Tuttle, Solomon, of New London, 381.
Tyler, John, president of the United States, "pockets" River and Harbor bill, 256.

Ulster co., N. Y., vote on barge canal question, 193.
Union canal, Pa., 359-361.
Union for the Improvement of Canals of the State of New York, organized, 2; work of, 2-11, 305.
United Retail Grocers' Association of Brooklyn, 14.
United States, *Board of Engineers on Deep Waterways*, appointed, report cited, 123-124, 139.
United States, *Congress*, bill for widening locks of Erie canal, 125, 159.
United States, *Interstate Commerce Commission*, report quoted, 27, 141, 142; decision in case of New York Produce Exchange against railroads quoted, 73; hearing of complaint of Produce Exchange, 89-90; report, 90-92; Import Rate case, decision cited, 91.
United States, *Senate Committee on Interstate Commerce*, report on waterways, quoted, 36-37.
U. S. Export Association, 6.
"United States Government and the New York State Canals," by T. W. Symons, 121-134.
Urban, George, 274.
Utica, N. Y., convention, 1885, 2; State Commerce convention, 1899, 9-16, 39, 161-162, 182; opposition to barge canal, 190; seal of city, 365; boats owned at, 383-384 note.
Utica Chamber of Commerce, 13.
Utica *Daily Press*, 139.
Utica Dairy Board of Trade, 14.

Valiant, John, of New York Produce Exchange, 84, 86; member of board of managers, 107 note.
Van Buren & Co., 273.
"Vandalia," propeller, 257.
Vanderbilt, Aaron, of New York, 167.
Vanderbilt, William H., president of New York Central Railroad, 80.
Venderhoef, G. W., on executive committee for banquet to Gov. Roosevelt, 43.
Van Rensselaer, William B., vice-president, Syracuse convention, 16.
Van Schaack, H. C., of Black Rock, 386.

Van Vliet, D. M., member of Canal committee of Produce Exchange, 107; at Albany meeting, 1901, 167; supports referendum bill of 1902, 170.
Vary, C. P. H., of Newark, member of State committee, Syracuse convention, 17; Buffalo convention, 23.
Venice, Ohio, 250 note.
"Venice mills," 242.
Vernon, N. Y., 337.
Verona, N. Y., 337.
Vollenhoven avenue, Buffalo, 238.
Voltz, John, delegate to Utica convention, 162.
Vosburgh, Cornelius, subscription to 100th Regiment fund, 273.
Vought, John H., member of canal committee of Buffalo Board of Trade, 304; delegate to meeting of American Cheap Transportation Association, 316; president of Board of Trade, 328.

Walbridge, George B., original member of Buffalo Board of Trade, 252; president, 328.
Walbridge, W. D., director of Buffalo Board of Trade, 263.
Walden, Ebenezer, member of Buffalo Harbor Company, 241.
Walker, Elmore H., annual statement of trade and commerce of Buffalo, 269; subscription to 100th Regiment fund, 273; "Appreciation of Work," by G. A. Stringer, 367-372; editorial on Gov. Hoffman's message, quoted, 368-370; statistician of New York Produce Exchange, farewell meeting of Buffalo Board of Trade, 370; extracts from reports, 371-372; death, 372.
Walker, H. C., 260.
Wallabout Market Merchants' Association, Brooklyn, 14.
Ward, William R. L., original member of Buffalo Board of Trade, 252.
Wardle, Charles A., of Catskill, member of State and Executive committees, Syracuse convention, 17; of State committee, Buffalo convention, 23; of Canal committee, Utica convention, 162.
Wardwell, A. C., of Catskill, 167.
Warren, E. S., original member of Buffalo Board of Trade, 252.
Warren, Henry J., original member of Buffalo Board of Trade, 252.
Warren, W. C., 174.
Warren co., N. Y., vote on barge canal question, 193.
Warren co., N. Y., *Board of Supervisors*, 14.
Washburn, Elihu B., member of commission on railroad rates, 77, 80.
Washburn, John H., vice-president Home Insurance Co., 6; signs appeal to voters, 105.
Washington, D. C., National Board of Trade meeting, 316.
Washington co., N. Y., loss of population, 100; vote on barge canal question, 193.
"Washington Line" of canal boats, 393-394.
Water street, Buffalo, 239.
Water-supply, conserved by barge canal, 156.
Watertown *Times*, anti-canal paper, 190.
Watford, A. B., engineer, 363.
Watson, Charles E., of Clinton, 178.
Wayne co., N. Y., loss of population, 100; vote on barge canal question, 193.
Webb, William H., treasurer of Canal Improvement Union, 2.
Webster, George B., vice-president of Buffalo Board of Trade, 250, 252; of firm of Joy & Webster, 378.
Weed, Smith M., 189.
Weed, William W., boat master, 384 note.
Weedsport, N. Y., represented at Utica convention, 14.
Weighmasters, 302-303.
Wells, David A., 301.
Wells street, Buffalo, 242.
Wentworth, David, 265, 269.
Westchester co., N. Y., vote on barge canal question, 193.
Western Hotel, Buffalo, 286.
Western Inland Lock Navigation Company, second report, 1798, 197-208; plan to connect Lake Ontario with Cayuga lake, 349-350.
Western New York Canal Enlargement Association, 326.
Western Transit Co., 274.
Weston, William, engineer, quoted, 225; estimates expense of canal, 227-228.
Wetmore, Melancthon C., boat master, 384 note.
Weymouth and Taunton canal, 227.
Wheeler, William E., at banquet to Gov. Roosevelt, 43.
White, Canvass, surveyor, 335, 345, 346; discovers hydraulic cement, 345, 356-357; "Canvass White's Services," by W. P. White, 353-367; early years, 353-355; experiences in War of 1812, 354-355; assists in Erie canal survey, 355; lays out Glens Falls feeder, 357; tribute from Judge Wright, 358; from Simon Guilford, 358-359; chief engineer of Union canal, 359-361; other engineering works, 361-363; death, 363; personal appearance, 364; memorial tablet, 364-366.
White, F. C., letter to W. C. Young concerning canal legislation, 349-351.
White, George C., president of White's bank, 266.
White, Hugh, pioneer settler at Whitestown, N. Y., 353, 364-365.
White, Hugh, *Jr.*, letter concerning his brother, quoted, 364.
White, *Deacon* John, 353.

White, Josiah, 362.
White, R. S., congratulatory message to H. B. Hebert, 106.
White, William Pierrepont, vice-president of Syracuse convention, 17; canal champion, 178; "Canvass White's Services," 353-367.
Whitesboro, N. Y., represented at Utica convention, 14; home of W. C. Young, 334.
Whitestown, N. Y., 353, 364.
Whiting, S. W., director of Buffalo Board of Trade, 263.
Whitney, G. J., 273.
Wholesale Grocers' Association, N. Y., 13, 50.
Wicks, Russell H., treasurer of Utica convention, 13.
Wilbur, E. B., 309.
Wilcox, Horace, secretary of Buffalo Board of Trade, 302.
Wilkeson, E. R., original member of Buffalo Board of Trade, 252.
Wilkeson, John, original member of Buffalo Board of Trade, 252.
Wilkeson, *Judge* Samuel, 238, 240; "Historical Writings," cited, 241 note; engaged in forwarding trade, 378; chairman of local committee of arrangements for opening of canal, 385-386.
Wilkesons, 250 note.
Wilkins, R. P., director of Board of Trade, 250, 252.
Williams, A. G., 275.
Williams, Frank, engineer, 261 and note.
Williams, G. T., original member of Buffalo Board of Trade, 252; incorporator, 264.
Williams, Geoerge H., of New York Produce Exchange, 107 note.
Williams, Perry P., 107 note.
Williams, Richard, 273.
Williams, William, on committee to draft constitution of Board of Trade, 243, 244; vice-president of Board of Trade, 250, 252; speaks at banquet, 268; subscription to 100th Regiment fund, 273.
Williams, *Capt.* W. G., surveys for ship canal, 131.
Williams, Fargo & Co., 274.
Williamson, S. E., attorney for N. Y., C. & St. L. Ry. Co., 90.
Williamsville, N. Y., 340.
Wilmot, Charles E., of New York Produce Exchange, 84, 86.
Wilner, Merton M., "The New York State Press in the Campaign for the Enlargement of the Canals," 187-193.
Wilson, G. R., original member of Buffalo Board of Trade, 252; incorporator, 264.
Wilson, John M., estimate of cost of lock enlargement, 133-134.
Wiman, Erastus, at canal hearing, 1898, 160; speaks at Utica convention, 162; canal champion, 178.
Windom, William, of Minnesota, quoted, 145.
Windsor locks, 362.
Winslow, N. C., & Co., 273.
Witherbee, Frank S., at banquet to Gov. Roosevelt, 43; member of legislative committee, 63; of Canal Improvement State Committee, 102; signs appeal to voters, 105; member of State Committee on Canals, 109, 160, 190; inspects European canals, 112; member of barge canal committee, Utica convention, 162; supports referendum bill of 1902, 170; delegate to Republican state convention, 172; attends Buffalo conference, 174; member of Canal Improvement State Committee, 176; canal champion, 178.
Wolf, Charles W., 273.
Women's Educational and Industrial Union, 298.
Wood creek, on route of barge canal, 61; early surveys, 197; canal to the Mohawk, 201-203; improvement of, 206-207, 224.
Woodford, *Gen.* Stewart L., speaks at Cooper Union mass meeting, 74.
Woodruff, Franklin, 79.
Woodruff, Ralph, boat master, 384 note.
Woodruff, Timothy L., lieut.-governor of New York, at banquet to Gov. Roosevelt, 43; at dinner of G. K. Clark, 98.
Woodward, J. S., of Herkimer, 178.
World's Columbian Water Congress, 297.
Worrall, *Col.* James, engineer, 360.
Worthington, S. K., director of Buffalo Board of Trade, 263; subscription to 100th Regiment fund, 273.
Wright, Albert J., president of Buffalo Merchants' Exchange, 328.
Wright, Alfred P., member of committee on reorganization of Buffalo Board of Trade, 282; of building committee, 288; trustee of Merchants' Exchange, 289; on canal committee of Board of Trade, 304; president of Board, 328; canal shipper, 383.
Wright, Benjamin, engineer, 334; survey of Erie canal, 335, 344, 355, 337, 365; high rank as engineer, 344, 345, 346; statement regarding Canvass White's discovery of hydraulic cement, 356-357; letter to Dr. Hosack, containing tribute to Canvass White, 358; chief engineer of Delaware & Chesapeake canal, 361.
Wright, John A. C., of Rochester, speaks at Buffalo convention, 28; leader of anti-canal forces, 191.
Wright, Peter, canal shipper, 383.
Wright, Silas, canal shipper, 383.
Wurster, Fred W., signs appeal to voters, 105.

Wyckoff, Charles W., of Ithaca, vice-president of Syracuse convention, 17; of Buffalo convention, 22.

Wyman, William, boat master, 384 note.

Wyoming co., N. Y., loss of population, 100; vote on barge canal question, 193.

Yates co., N. Y., loss of population, 100; vote on barge canal question, 193.

Yaw, A. P., original member of Buffalo Board of Trade, 250.

Young, William C., "Reminiscences of Erie Canal Surveys in 1816-1817," 331-347; letter to, from F. C. White, 349-351; inventor of modern railroad ties, 365-366.

ERRATA

Page 23, for "Nikola Tekla" read "Tesla."
" 43, " "Fred S. Nixon" read "S. Fred Nixon."
" 80, " "C. B. Roberts" read "G. B. Roberts."
" 125, line 12, for "1890" read "1896."
" 261, for "Capt. Caufield" read "Canfield."
" 288, " "M. I. Crittenden" read "M. L. Crittenden."

UNIVERSITY OF CALIFORNIA LIBRARY,
BERKELEY

THIS BOOK IS DUE ON THE LAST DATE STAMPED BELOW

Books not returned on time are subject to a fine of 50c per volume after the third day overdue, increasing to $1.00 per volume after the sixth day. Books not in demand may be renewed if application is made before expiration of loan period.

AUG 13 192[illegible]

NOV 29 1926

4Apr'53LO

INTER-LIBRARY
LOAN

MAR 3 1965

JAN 20 1994

[redacted]

RECEIVED

FEB 27 1995

CIRCULATION DEPT.

20m-1,'22

204229
Buffalo historical society. Publications.
F129 .B8B85 v.13
AUG 5 1916
JUL 31 191
AUG 13 1928
NOV 23
DEC 2 192
Clarkson
U. C. BERKELEY LIBRARIES
C042456338
F129
.B8B85
v.13
Buffalo
204229
v.13
25m-2,'11